

A7-A114 224 FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
LOCAL AND REGIONAL WINDS: THEIR NAMES AND ATTRIBUTES, (U)
WAR H2 O MARTYN
UNCLASSIFIED FTU-10(RS)T-1721-81

FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
LOCAL AND REGIONAL WINDS: THEIR NAMES AND ATTRIBUTES, (U)
MAR 82 O MARTYN
FTD-10(RS)T-1721-81

NL

UNCLASSIFIED

112

242

1

2

FTD-ID(RS) T-1721-81

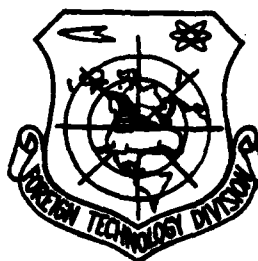
FOREIGN TECHNOLOGY DIVISION



LOCAL AND REGIONAL WINDS THEIR NAMES AND
ATTRIBUTES

by

Danuta Martyn



DTIC
ELECTE
MAY 10 1982
D

Approved for public release;
distribution unlimited.

DTIC FILE COPY



8 2 0 5 1 0 1 3 9

ADA 114222

Accession For	
NTIS	<input checked="" type="checkbox"/>
DTIC TAB	<input checked="" type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	



FTD -ID(RS)T-1721-81

EDITED TRANSLATION

FTD-ID(RS)T-1721-81

30 March 1982

MICROFICHE NR: FTD-82-C-000402

LOCAL AND REGIONAL WINDS THEIR NAMES AND ATTRIBUTES

By: Danuta Martyn

English pages: 168

Source: Prace i Studia Instytutu Geograficznego
Uniwersytetu Warszawskiego, Klimatologia,
Vol. 22, Nr. 9, 1977, pp. 102 unnn pgs

Country of origin: Poland

Translated by: LEO KANNER ASSOCIATES
F33657-81-D-0264

Requester: USAF/ETAC/MAC

Approved for public release; distribution unlimited.

THIS TRANSLATION IS A RENDITION OF THE ORIGINAL FOREIGN TEXT WITHOUT ANY ANALYTICAL OR EDITORIAL COMMENT. STATEMENTS OR THEORIES ADVOCATED OR IMPLIED ARE THOSE OF THE SOURCE AND DO NOT NECESSARILY REFLECT THE POSITION OR OPINION OF THE FOREIGN TECHNOLOGY DIVISION.

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

FTD -ID(RS)T-1721-81

Date 30 Mar 19 82

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc.
merged into this translation were extracted
from the best quality copy available.

INTRODUCTION

Up to this time, two works have appeared in the Polish climatological literature dedicated to the names and terminology of winds; they are the cited works by W. Milata [15], and the other one by A. Schmuck [27]. The first of these contains 71 names, and the second 233. These, however, are not complete works, and this is testified to by the cited work of H. Schamp, which contains 520 titles.

There is thus an apparent need for drawing up a more complete catalog, specifically for the sake of including many names in Polish for local winds and for phenomena connected with wind, for example, trąb powietrzna ("whirlwind"), as well as names for weak and strong winds. This has been made especially apparent by the work of W. Kupiszewsk cited here [13], in which there was a treatment of idiomatic and slang names from the area of meteorology in Poland.

For the present work, which contains about 1,700 titles, works dealing with the terminology for local and regional winds, as well as the terminology for general atmospheric circulation have been used [4, 11, 14, 15, 16, 19, 20, 25, 27, 28]. Meteorological dictionaries have also been inspected: these include general dictionaries [8, 9, 10, 26], bilingual dictionaries [1, 2, 17, 24], as well as several general climatological and textbook publications.

The wind terms are collected in alphabetical order with preference given to the written Polish term, or the term as it is most often met with in the literature. The origins of the names and terms are also given. Other variants for the terms have also been taken into account, with reference made to the basic term. The numbers of the bibliographical references are given in brackets. Where it has been possible, descriptions of the climatological origins and features, together with topographical origins and features have been given.

At the same time, equal regard has been taken of winds that are, strictly speaking, local ones (ones that have arisen in a field of weak atmospheric circulation), as well as winds that are regional in nature (those that have arisen in a field of oriented atmospheric circulation); in addition, some winds of general circulation connected with tropical cyclones and snow and dust storms have been included as well.

The present catalog as it stands is not complete; one deficiency is especially in the characterizations of the origins and types of certain winds. For this reason, I will be grateful for any remarks and additions.

I would like to thank everyone who participated in adding to and enriching this catalog.

A

Aasgardweg (see asgardweg)

Aberwind -- a warm föhn wind blowing from out of the Alps during the spring, prompting the melting of snow; it is also called: alpach, aperwind (this term is used mostly in the Swiss Alps) [2, 8, 25, 27].

Abroholos -- a squall wind observed from May to August on the Brazilian coast between the Frio promontory and St. Thomas [7, 8, 26, 27].

Abrolhos -- a southerly, gusting, and rainy wind off the rocks and cliffs of eastern Brazil, in the environs of Caravelas; it appears mainly between May and August, and the term abrolhos squalls is also used [2, 8, 25, 26].

Abrolhos squalls (see Abrolhos)

Afer -- a southwesterly wind in Italy; equivalent terms: africino, africo, africuo, and africus ventus [2, 8].

Afghanets (see afganiec)

Afganiec -- a southwesterly wind (out of Afghanistan) blowing in the southern region of Central Asia, especially in the Amu Darii mountain region near Termez; it also shows up in the valleys of Surhan-Darii, Kafirnigan, and Balchash, and it is observed in Dushambe, Garma, and in the Kyzyles Valley, and sometimes in Naryna, Tian-Sian, and Djarkenka. The occurrence of this wind is explained by the advection of cold air from the north or from the northwest with a depth ranging from several hundred meters to 5-6 kilometers. Warm, violent winds are carried aloft along the cold front, forming strong vertical winds carrying air that is strongly charged with dust to altitudes of 3-4 kilometers and for distances as far as the Caspian Sea. The afganiec is a very strong wind with average velocities of 15 m/sec. It is very hot and dry in the summer, and it contains great amounts of dust; in the winter, it brings snowfall and snow storms. It is also called the wild afganiec or the 120-day wind when it blows almost daily throughout the whole summer in Afghanistan; it is

also known as alfanets, tzang; it is also generally known as the karaburan [2, 4, 5, 16, 20, 25, 34, 36].

Africino (see afer)

Africo (see afer)

Africuo (see afer)

Africus ventus (see afer)

Aftab cho -- a southeasterly wind in Iran; it is accompanied by good weather; it is also called ghebleh [6].

Agueil -- an easterly wind that moderates the winter, often accompanied by light rain or snow, blowing during the spring in the southern Sevnnes mountains; it is also called the aiguolas [25, 28].

Ahmir -- a strong western wind in Iran, particularly frequent during the autumn [6].

Aiguolas (see agueil)

Aire de Cartagena (see leveche)

Albany doctor (see Perth doctor)

Albé -- wind directed out of the west to the southwest, humid and warm, blowing in the environs of Roussillon in the eastern Pyrenees (the Albères mountains); often accompanied by rain and storms; also called: vent d'Espagne, tramonta [9, 25, 28].

Albertville -- northwest wind in Montiers in Sabaudie [28].

Albtalwind -- a mountain wind in the Alb Valley in the southern Black Forest [25].

Ale viatr (see wicher) [Translator's Note: The author has omitted this term in the present list; in Polish, it has a broad range of meanings, including: "gale," "whirlwind," "tempest," "storm."]

Alize -- southerly winds variable to the east, blowing along the West Africa coast in the winter [16].

Allerheiligen Wind -- a German wind meaning "All-Saints Wind"; a wind that blows in the Tyrols during "Indian Summer" [2].

Aloegoe -- one of the local winds over Lake Toba in southern Sumatra; other winds include: bolon, dahatoe, loehis, nirta, saoet, si giring giring, siroeang, tamboen [2, 8].

Aloup de vent -- a cold nighttime wind in the Breven Valley in France [2, 8].

Alpach (see Aberwind)

Alpenföhn (see föhn)

Altanus (see autan)

Altranus -- a strong southeast wind in the southern part of Central France [2].

Amont (see vent d'amont)

Anabatychny viatr (^{anabatic wind} "the ~~Anabaptist~~ Wind") -- a wind appearing on slopes and declivities; this term is usually used when it blows in the direction of a summit or toward mountains as a result of local heating and occurring independently of the general atmospheric circulation; it is considered to be a valley wind [10, 25].

Ander -- a strong southerly wind over the southern portion of Lake Garda in southern Italy; also: andro [25].

Andro (see ander)

Anger sand -- English term denoting a sand whirlwind in Death Valley in California [2].

Angin-darat (see angin-dorat)

Angin-dorat -- an offshore wind in Malaya; also called angin-darat [2].

Angin-laut -- a sea breeze in Malaya [2, 8].

Antylski huragan ("Antilles Hurricane") -- a tropical cyclone over the Antilles.

Aouro -- a breeze with a southerly heading in Joyeuse (Dept. Ardèche); generally also aure [25, 28].

Aouro basse (see aure)

Aouro de Meyrueis -- a southwest squall wind in the southern Sevennes [28].

Aouro du Mezenc -- a western wind in Saint Agrève (Dept. Ardèche) [28].

Aouro negro (see aure)

Aouro rousse (see aure)

Aouro rousso (see aure)

Apartkias -- an Old Greek term for a southeasterly continental wind appearing in the winter [26].

Apeliotes -- an Old Greek term for an easterly wind (blowing "from the sun"), that was warm and dry; also: apheliotes [2, 8, 15, 25].

Aperwind (see aberwind)

Apheliotes (see apeliotes)

Apogean -- a term for offshore winds in Greece [8].

Aracaty -- a southeasterly wind in Ceará in Brazil [8].

Arc -- a southerly wind blowing during the winter season in Valmeinier and Sainte-Marie-de-Cuines in Sabaudia; it brings cold and good weather [28].

Agestes -- an Old Greek term for a southwest wind over the Ionian Sea; in general, also known as: etezja, maistros, or maestro [25].

Ari -- a southeasterly wind in Bugey, Valromey, and Michaille in the Jura, which blows at altitudes greater than 400 meters above sea level [28].

Arifi -- a colloquial term for the sirocco in South Africa [2, 8].

Armenaz -- a southerly wind in the Frontenex-Albertville area in Sabaudia [28].

Arouergue -- a mild southerly wind, humid and stormy with rainstorms, appearing for the most part during spring in the southern Central Massif; also known as the rouergue [25, 28].

Arsine -- a westerly wind giving rise to storms and hail in the Monetier-les-Bains and in the Guisane Valley (the Hautes-Alpes) [28].

Arves -- a summer westerly wind bringing rain precipitation in Jarvier in Sabaudie [28].

Asgardweg -- the Swedish term for a whirlwind; also known as: aasgardweg, asgardsweg [9, 25, 26].

Asgardsweg (see asgardweg)

Aspre -- a föhn-like easterly and southeasterly wind in the environs of the Can Valley (the eastern Central Massif); also known as the lou cantalié [2, 8, 25, 28].

Athos -- a cold southeasterly katabatic wind on the Athos Peninsula; it may be felt on the sea at a distance of several kilometers from the peninsula, and often blows with storm-like force [8].

Aura (see ora)

Aura de Meije -- a southerly wind in the Central Massif [28].

Aurassos -- an especially strong mistral with a southwesterly heading in the Rodan Valley in Provence [9, 17, 25, 26].

Aure -- a mildly strong, especially humid and warm wind from westerly and southerly directions in the Sevennes and in the southern Central Massif; it is also known as the aouro, which is its colloquial name; depending on the direction from which it blows, it has various names: aouro basso, from the southwest; aouro negro, from the west and southwest; aouro rousse or rousso, a warm westerly wind blowing during the winter, causing rapid snow melting [25].

Aure basse -- a name for the Narbonnais wind in Languedoc in the southern Sevennes [28].

Aure rousse -- a southwesterly wind blowing in the southern Sevennes with moderate force, humid and relatively mild; in January and February, it carries warm rain and snow precipitation [28].

Auro -- (1) a southwesterly wind in the southern Alps and in southern Ventoux; (2) a southerly wind in Provence [28].

Auro basso -- a westerly wind in the Rouergue bearing precipitation; also known as the vent mou [28].

Auro bruno -- an easterly wind in the Rouergue in France; also known as auro rousso [28].

Auro rousso (see auro bruno)

Aussois -- a cold southerly wind bearing rain or snow precipitation in all seasons of the year, in Aussois in Sabaudia [28].

Auster -- (1) the Latin term (from "australis") for southerly winds; (2) a term for southerly winds in England; (3) the antique term for the southerly wind (the sirocco) on the Bulgarian coast; also known as the ostria [2, 8, 26, 26].

Austru -- a term coming from the Lat. "australis," for southerly. A dry, westerly föhn wind and a southwesterly wind in Lower Italy; also known as the austrul [2, 4, 9, 17, 25, 26, 27, 36].

Austrul (see austru)

Autan -- a southeasterly föhn wind, sometimes squall-like, blowing most often during the autumn in Upper Languedoc to Toulouse, Alba, and Montobana; it bears great heat, with nighttime temperature minimums increasing from 5 to 10°C; the sky is bright and fair, two days after which clouds appear, rain falls, and there are often storms; when there is no precipitation, the weather may remain sometimes without clouds for a longer period of time; this wind has the following names: autan blanc, outo; also: altanus, vents d'autan [2, 4, 8, 9, 15, 25, 26, 27, 28, 36].

Autan blanc -- a strong easterly and southerly wind appearing generally during the spring and autumn in the area to the south of Garonne; this is a wind of anticyclonic origin, generally intense when the anticyclonic high is located over Central Europe and Southern Europe; it is an autan lasting for a longer period than normal; also, vents d'autan [2, 8, 18, 26, 27].

Autan noir -- an easterly wind in Languedoc; it occurs when there is a low present above the Bay of Biscay; also known as vents d'autan [8, 18, 27].

Autun (see marin)

Auvergnac (see auvergnasse)

Auvergnal (see auvergnasse)

Auvergnasse -- a southwesterly wind (out of Auvergne) in Saint-Agrève in the Central Massif; it is often accompanied by rain or snow precipitation; it also carries the names: Auvergnac, Auvergnal, vent de Lisieux [2, 8, 25, 28].

Aval (see vent d'aval)

Avalanche wind (see wiatr lawinowy) [Translator's Note: The Polish term here is a direct translation of the English term.]

Avalaison -- a constant westerly wind over the French Atlantic coast [2, 8].

Avre -- in French dialect, this means a warm wind in the winter and a cold wind in the summer [2, 8].

Ayalas -- a southeasterly wind, warm and stormy in the Central Massif, connected with the leading or forward parts of lows moving in from the Atlantic over the Mediterranean Sea; during the spring, it causes the rapid melting of snow, and during the autumn, the rain precipitation causes flooding; it is the same as the marin wind; also known as the ayolas [2, 8, 25, 28].

Aygalas (see marin)

Ayolas (see ayalas)

Aziab -- local term for warm and humid winds above the Black Sea [3, 25].

B

Badé alvar (see samun)

Bade meh (see chahriar)

Bad-e-sad-u-bist-ruz (see bad-i-sad-bistroz)

Bad-e-simur -- the period of desert winds appearing at the height of the summer in Iran [25].

Bad-i-kasif -- the Arabic term for "evil wind"; a strong and hot southerly wind in the Iranian deserts; also: tebbad [20].

Bad-i-sad-o-bistroz -- Persian for "120-day wind"; a southerly or southwesterly wind, dry and hot, blowing during the period from May to September with great velocities reaching up to 45 m/sec; it blows through the Ejulfagarsek Pass and across the Paropanis Depression when the cold front reaches great distances to the southeast; the wind blows from Kara-Kum and it has the character of an aerial avalanche; it is characteristic for the area between Iran and Afghanistan (the Seistan and Registan districts); this wind is felt as a cold wind also on the Lota Desert; also known as: seistan, bad-e-sad-u-bist-ruz [2, 4, 7, 20, 25, 26, 27].

Bagio (see Baguio)

Baguio -- a local term (from the region of Baguio) for tropical cyclones (typhoons) in the Philippines; they appear mainly in the period from June to November; other names are: bagio, bagyo, baquio, baruio, vaguio, vario; also: colla [1, 2, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Bagyo (see baguio)

Bakharz -- a wind similar to the bad-i-sad-o-bistroz and the afganiec in southwestern Iran [23].

Bakinskij nord -- a strong (average velocity 8 m/sec, gusting to 20-40 m/sec), dry, heavily dust-laden wind blowing two to three days at a time or, at the most, nine days and more in the Baku environs; connected with the trailing portion of a low traveling from the west to the east across Baku or through areas close to it; it ceases when the center of the low passes through Baku; it is observed the whole year round, mainly in the summer, and it is called by the inhabitants of Baku the "Egyptian punishment" [4, 32, 34].

Bajamo (see Bayamo)

Balaton Wind -- a lake breeze over Balaton, frequent rain in the summer period, it often reaches a distance of 5-10 km beyond the lake [25].

Bali -- (1) Bali wind, a strong easterly wind above Eastern Java; (2) a local wind descending over the eastern portion of Lake Garda in Italy; similar to the sover, in distinction to which it is aperiodic; usually it lasts three days; also called vent de Bali [1, 7, 8, 25, 26, 27].

Bałchaszka bora ("Balkhashka bora") (see the Kounrad nord-ost)

Ban-gull -- a sea breeze in Scotland [2, 8].

Baquio (see Baguio)

Baquios -- tropical cyclone in the southern latitudes [2].

Barat -- a strong, squall wind that is either a western one or a northwest one that blows from December to February over the northern Celebes, and especially in Menado Bay [1, 2, 7, 8, 9, 17, 18, 25, 26, 27].

Barber -- (1) this term is used in the region of the Saint Lawrence River to denote a strong wind accompanied by a chilled rain that freezes when it touches objects or faces (beards and mustaches) and causing sharp pain in the skin; (2) this term also includes the sense of a snowstorm (blizzard) from the northwest in eastern Canada; also called berber [1, 2, 7, 8, 20, 25, 26, 27].

Bardanis -- northeastern wind in Narbonne in France [28].

Barf khor -- this term means "the wind that eats snow"; it is a föhn wind, dry and warm, descending down the side of Elburs in the direction of the Caspian Sea; the rise in temperature occasions rapid snow melting [6].

Barguzin -- a katabatic wind blowing from the northeast, from the Barguzin Valley above Baikal, observed all year long, more often during the autumn [4, 16, 22, 32].

Barih (see szamal)

Barine (see barinés)

Barinés -- a westerly wind in eastern Venezuela and Brazil; also called the barine [1, 2, 7, 8, 25, 26, 27].

Barran -- a southeasterly wind in Auch in France; it is also known as: vent de Bayonne; its colloquial name is bent de barran [28].

Bartek (see wir powietrzny ["whirlwind"])

Baruio (see Baguio)

Bat furan -- means "open sea"; a weak, winter northeasterly monsoon making it easy to cross the Arabic Sea [18, 25].

Bat hiddan -- means "closed sea"; a stormy, northwesterly monsoon blowing during the summer season from Somalia and crossing the Arabic Sea [18, 25].

Báti lodos (see lodos)

Batis (see embata and emvatis)

Bauju -- a southerly or southwesterly wind, warm and humid, carrying precipitation and storms, blowing mainly during the summer season and during the autumn in

Upper Sabaudia; it is westerly in Faverges and southeasterly in Rumilly in France [25, 28].

Bayamo -- a strong and gusting offshore wind on the slopes of the Sierra Maestro mountains in the southern part of Cuba, and especially in the Bay of Bayamo [1, 2, 7, 8, 18, 26, 27].

Bayamos -- strong, tropical storms with rain storms on the southern coast of Cuba [9, 17, 25].

Bayerischer Wind (see Bayrischer Wind ["Bavarian Wind"])

Bayrischer Wind ("Bavarian Wind") -- (1) local term for westerly winds in Upper Austria; (2) a valley wind with a northerly heading in the Ötz Valley; also known as the Bayerischer Wind [9, 17, 25, 26].

Belar (see belat)

Belat -- a strong and gusting northerly or northwesterly wind blowing from December to March on the northern coast of the Arabian Peninsula; between the promontory of Ras Sadjir and Masira Island; it is particularly strong in the Bay of Kuria Muria; it usually begins at night, between 2400 hours and 0400 hours (as a land breeze); at first, the wind is very weak, and then over the course of an hour, it reaches storm velocities, and then in the hours after midday, it becomes weaker; it carries a great deal of dust and sand, which gives rise to significant amounts of atmospheric pollution; also known as: belar, belats, belot [1, 2, 4, 7, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Belats (see belat)

Belot (see belat)

Bent de barran (see barran)

Bent de biso (see bise)

Bent de Bourdéou (see vent de Bordeaux)

Bent de Darré -- a strong and humid westerly wind carrying precipitation into Gers in France; also: garennés [28].

Bentu -- an easterly wind blowing along the coast of Sardinia [7].

Bentu de soli -- an easterly wind in Sardinia, quite humid; when it is over Southern Europe and moving in an easterly direction, it causes a high which is separate from the Azores high [1, 2, 8, 20, 26, 27, 35].

Berber (see barber)

Berg (see berg wind)

Berg wind -- English term meaning "mountain wind"; hot and dry wind of the föhn type over the southwestern coast of South Africa, especially in the Cape region; it is often observed during the winter as it raises the temperature significantly; this may last for several days; it is also known as the berg [2, 7, 18, 25, 27].

Bernsteinwind -- German "amber wind"; a northeasterly wind on the coast of Zambia causing the erosion of amber due to water [25, 26].

Bhoot -- a sand storm or sand wind in India; also: bhut [2, 7, 8, 18, 25, 26, 27].

Bhut (see bhoot)

Binante (see binaude)

Binaude -- northwesterly wind in Clairvaux and Soucia in the Jura; it carries rain or snow precipitation; after it passes, there are periods of good weather; also: binante [28].

Birazon (see virazon)

Bise -- a term for winds similar to a mistral and a tramontane, connected with the advection of cold continental air in France and Switzerland. It is generally a cold wind, although sometimes it can have föhn characteristics and be only mildly strong, especially in the mountains (tunnel effect), and it is dry; it often blows during the winter and spring seasons, although it may arise during any other season of the year; it lasts several days; the headings for these kinds of winds, as well as their accessory characteristics are different and depend on local conditions; thus, in France it is a northeasterly wind, in Champagne it is easterly; in Morvan, where the very dry March winds are called hale de mars, it is southerly whereas in Saône, Sabaudia, in the northern Alps and in Southern Ventoux, Vivarais, above the central and northern Central Massif (here it is called the bise noire), in Cantal (vent d'amont), and in Gers (bent de biso) it has a northern heading. The bise with a northeasterly heading is observed in Northern France (in Oise, it is called vent de France), the Jura, Yonne, the Southern Sevens, Touraine, Quercy, Rouergue (the biso negro), Ruffieux in Sabaudie, the Dept. Isère, in the environs of Vinay, and in Uriage and Ornon. In the region of Deux-Sevres, it blows from the east, where it is accompanied by good weather, as well as in Châtillon-sur-Seine (here it is called Schvenwind). In the environs of Toulon, it has a northwesterly direction, and in Switzerland, it has a northern and northeasterly heading. In Lausanne above Lake Geneva, its velocity reaches 25 m/sec; here it is a cold and dry wind, and these features may be superimposed sometimes on the föhn effects. It is rarely accompanied by precipitation. It is observed the whole year round, but more often in April and May. It lasts on the average 157-176 days [2, 4, 7, 8, 9, 18, 25, 26, 27, 28, 34, 36].

Bise brume (see bise brune)

Bise brune -- (1) a northwesterly wind in Drôme in France; this is generally a warm and humid wind, and in the winter it carries snow precipitation; (2) a warm northwesterly wind in Le Sautet and in Motte-d'Aveillan, and a northeasterly wind in Chantelouve and in the Dept. Isère; it gives rise to rapid snow melting, and it brings rainfall; also: bise brume [28].

Bise de Bayard -- a northerly wind blowing through Gap and through the Bayard Pass in France [28].

Bise du haut -- a winter and generally strong northeastern wind that brings

good weather in Gigny in the Jura [28].

Bise du Vallon -- a bise in Luz-la-Croix-Haute in the Dept. Drôme [28].

Bise nègre -- a bise with cloudy and rainy weather in Aveyron and Rouergue in France; also: biso negro [8, 28].

Bise noire -- a bise blowing from the north in Saône, in Brézins (Isère), and in Sainte-Agrève (Ardèche) [9, 23, 28].

Biso negro (see bise nègre)

Bissorte -- a warm and rainy southerly wind in Saint-Martin-la-Porte in Sabaudia, which blows the whole year round [28].

Black blizzard -- the term for a dust storm in the Dust Bowl (USA) [8, 18, 27].

Black buran (see karaburan)

Black northeaster -- English term for wind from the northeast; a squall-type northeasterly wind in New Zealand and along the coast of New South Wales, which appears mainly in the summer when there is a low in the northwest and a high over the coast of New South Wales; sometimes it blows for three days, accompanied by dense clouds and strong rainfall, reducing visibility to 400 m; other names are: black squall, northeaster [8, 9, 17, 27].

Black roller -- a strong wind carrying dust and continental air masses from the southwest or the northwest in the Great Prairies of the USA [8].

Black southeaster -- English term for a wind out of the southeast; it is a violent southeasterly wind in New Zealand and New South Wales; it is accompanied by dense clouds and heavy rainfall; also known as: southeaster [8, 9, 25, 26, 27].

Black squall -- English phrase for a squall accompanied by dark clouds and precipitation, for example, black southeaster [8, 27].

Black storm (see karaburan)

Black wind (see reshabar)

Blackthorn winds -- cold and dry winds in the Tamiza Valley observed in March and April; also: blackthorn winter [2, 8].

Blackthorn winter (see blackthorn winds)

Blad -- squall with rain storm in Scotland [2, 8].

Blanc -- southwesterly wind in the area of Villefort (Lozere) [28].

Blash (see brash)

Blaze -- a sudden gust of dry wind in Scotland [2, 8].

Blés -- dry and mild southerly wind in Vernoux (Ardèche) in France [28].

Blind southeaster -- English phrase meaning "a blind wind from the southeast"; this wind is similar to a black southeaster, but it is not accompanied by clouds; also: southeaster [8, 9, 25, 26, 27].

Bliffart (see bluffart)

Bliffert (see bluffart)

Blinter -- gust of wind in Scotland [2, 8].

Blirty -- a term used in Scotland for gusts of wind with rain [8].

Blizard -- a cold northerly winter wind with snow in Val-d'Isère in Sabaude; also: boulbie [8, 28].

Blizzard -- according to the definition of the WMO [World Meteorological Organization], this is a "...strong and very cold wind accompanied by snow";

(1) a northwesterly wind, cold with snow in the USA (mainly in Virginia), Canada, and England, blowing at the trailing edge of a low; (2) strong winds that descend on the Adele Region in the Antarctic; (3) a popular term for snowstorm; equivalents to blizzard are buran and purga [7, 8, 9, 10, 15, 18, 25, 26, 27, 34, 36].

Blizzard black -- this is similar to a blizzard proper; however, these are stormy winds, dry and cold, blowing in the northern American prairies, causing the dry earth from plowed lands that are not covered with snow to be blown aloft [9, 17, 25, 26].

Blout -- sudden appearance of a storm, rain storm, or hail with wind in Scotland; other terms: blouter, blowther, blowthir [2, 8].

Blouter (see blout)

Blowther (see blout)

Blowthir (see blout)

Bluffart -- a gust of wind or a squall bringing a short-lived snowfall in Scotland; also: bliffart, and bliffert [2, 8].

Blunk -- a sudden squall or bad wind in England [8].

Boam -- a stormy wind of the bora type from the Boam Valley (the Czu River), that blows into the region of the Issyk-Kul basin, having a westerly heading and attaining hurricane velocities (30-34 m/sec); also: buam, ulan [4, 5, 16, 20, 32].

Boàren -- local wind in the Bay of Salò in Lake Garda in Northern Italy [25].

Bochorno -- Spanish, "heat," "scorching heat," or "hot weather"; a southeasterly wind in the Ebro Valley in Spain, conforming to the course of the river, blowing during the warm half of the year; it is warm and humid; during the winter, there is also a contrary wind, the cierzo (Sp.) which is probably the sirocco [9, 17, 25, 27].

Bofu (see typhoon)

Böhmischer Wind -- Ger. "Bohemian or Czech wind"; a cold and gusty wind, similar to a bora, descending into Bavaria and the Bohemian Forest, connected with a high over the eastern portion of Central Europe; similar to the Elbtalwind [25].

Bohorok -- warm and dry local wind on the Highlands of Deli, Laugkat, and Lerdang in Northern Sumatra; it is a northeasterly monsoon wind passing through the Barisan mountains and descending down the protected or leeward side of the mountains in the same manner as a föhn; it blows mainly in the period from May to September, and it is most frequent at the end of this period; also: bokorot [1, 2, 3, 4, 7, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Bokorot (see bohorok)

Bolon -- local wind over Lake Toba in Northern Sumatra; it is the same as the aloegoe wind [2, 8].

Bonenti -- a westerly humid wind in Bulgaria bringing cloudy and overcast weather; it is also known by the term karael [20].

Boorga (see buran)

Bora -- general term for strong, cold, and gusting winds blowing from off of the highest mountain ranges in the direction of a relatively warm sea, lake, or plane or flat country. With the advection of cold, air is upturned and pushed over the surface, and heated dynamically at the same time; because this process is not complete, it passes to a protected or leeward side as air that is still cold. Some derive the term from the Greek word boréas, which means a northern wind; others derive it from the Turkish word burā, which means "storm." The most well-known bora blows from the northeast onto the Dalmatian coast of Yugoslavia. It appears when a barometric low passes above Italy, and the cold, polar-continental air moves down from Central and Eastern Europe above the warm Adriatic Sea while at the same time a local high is forming above the Balkans (where the cold air stands in the mountain depressions). This is a typical anticyclonic bora, that is, it is dry. When it is not located above the Adriatic itself, the bora is accompanied by precipitation, and this is a cyclonic bora (bora scura). The velocity of a bora, especially a cyclonic bora (with very high barometric

gradients) is quite high, attaining 50-60 m/sec. The main areas into which boras blow are the following: the Bay of Trieste, the Kvarner Bay (in the environs of Senj), Szybenik, the Ploch promontory, the Bay of Vrulja (between Omis (Almisa) and Makarska), and the Giuliana Bay; it blows from the northwest into the Mljet channel and into the Drin Bay. A weak bora is observed on the western coast of Istria, in the Zara channel, on the islands of Duga, Kornat, and Mljet, and on the coast between Cavtat (Ragusavecchia) and Ostri Huk. The Dalmatian bora (the Adriatic bora) is also felt on the Italian Adriatic coast, where it has different names. The term bora is used generally for winds arising under similar synoptic and topographic conditions in various parts of the world: in Novorossiysk on the northeastern shore of the Black Sea, on Novaja Zemlya, over Baikal (sarma), in the Iskanderon Bay (ragut, rageas, ghasiyah), above Lake Balchash (the Balkhashska bora, Kounrad nord-ost), and in Norway (sno). Similar to boras with regard to origin and course are the following: the nord in the Baku Region, the mistral over the Mediterranean French coast (from Montpellier to Toulon), the northe in the Bay of Mexico, the Boam in the Issyk-Kul basin, the Polak in Moravia, the Böhmischer Wind in Bavaria and the Bohemian Forest, as well as others [4, 7, 8, 9, 15, 16, 18, 20, 25, 26, 27, 32, 34, 35, 36].

Bora chiara -- Ital. "clear bora," "cloudless"; this is a bora of anticyclonic origin connected with a high above the Balkans (a low barometric gradient) and on the Italian Adriatic coast; it is more often observed during the winter, bringing dry and cloudless weather [18, 27].

Bora ciclonica -- a bora of cyclonic origin, quite strong (a high barometric gradient) and quite stable; it blows from a northeasterly direction and from the east above the Italian coast; it is accompanied by rainy weather, and in the winter by a strong frost and heavy snow; it arises when a low is located above the Central Adriatic; it is also called: bora scura ("dark, gloomy") [2, 8, 18, 26, 27].

Bora scura (see bora ciclonica)

Boraccia -- a particularly strong bora above or on the Italian Adriatic coast; also: boron [8, 9, 27].

Boraccio -- a particularly frequent bora [17, 25].

Borasca -- a Span. term used throughout the area of the Mediterranean Sea meaning winds connected with storms; also: borasco, bourrasque [2, 8].

Borasco -- a term for storms accompanied by winds over the Mediterranean Sea; also: burrasca [1, 7, 8, 18, 25, 26].

Bordelais -- a westerly wind (from the direction of Bordeaux) in Quercy in southwestern France; it blows the whole year round, and it is mild, humid, and rainy; during the summer period, it brings heavy storms [8, 25, 28].

Boreas -- (1) an Old Greek term for northerly winds, meaning "wind from the mountains"; generally: borras; (2) in the eastern part of the Mediterranean Sea, mainly in Greece, it means a wind from the mountains, having a north-northeastly and northeasterly direction [2, 8, 17, 18, 25, 26, 27].

Boreasz -- the term used in the Polish literature for the boreas wind [15].

Borin -- a weak bora on the Italian Adriatic coast [27].

Borino -- (1) a summer wind of thermal origin with a low velocity on the Adriatic Dalmatian coast; (2) a summer, but not too strong northerly and northeasterly wind in the Bay of Taranto (in southern Italy) [2, 9, 17, 25, 26, 27, 35].

Bornan -- a valley wind in the Drance Valley, which emerges over the central part of Lake Geneva [1, 2, 7, 8, 26, 27].

Boron (see boraccia)

Borras (see boreas)

Boulbie -- a strong, cold, and dry northerly wind in the Ariege Valley to the north of Toulouse in Southern France; it blows primarily during December and January; it brings snow and snow drifting; also: blizard [2, 8, 28].

Bourget -- a gentle and rainy westerly wind, which blows mainly during the autumn season in Saint-Offenge-Dessous in Sabaudia [28].

Bourrasque (see borasca)

Bramont -- a cold northerly wind (from out of the Bramont Pass), which can occur the whole year round in Montsahey in Sabaudia [28].

Brash -- a colloquial but rarely used term for sudden wind gusts or sudden storms in England; also: blash [17].

Brave west wind -- strong, often stormy west-northwest and northwestern winds blowing the whole year round between 45 and 60° South latitude, caused by a strong barometric gradient in expanses of sea without larger land masses [1, 7, 9, 15, 18, 25, 26, 27, 36].

Breather -- a term for tropical storms [27].

Bregenzer Fallwind -- an east wind or a northeast wind with föhn-like characteristics blowing out of the Gebhards and Pfänder mountains into the Bregenzer Bay (Bodensee [Lake Constance]); with this kind of weather, there may be higher temperatures in Bregenz than in neighboring Lindau; it is more often seen in the spring, and it blows from the northeast; it is also known as: the Ostföhn, Falscher Föhn, Pfänderwind [25].

Brenner -- a sharp gust of wind over water in England [8].

Breva -- a valley wind blowing for the course of a day upwards into the Adda Valley (the northern part of Lake Como) in northern Italy; it blows from the southern arms of the lake: breva di Lecco (from the locale of Lecco) and the breva di Como (from Como) [1, 2, 7, 8, 9, 17, 18, 25, 26, 27, 36].

Breva del laggio -- a light wind blowing from the direction of Lake Lugano in Italy [8].

Breva di Como (see breva)

Breva di Lecco (see breva)

Brezza di mare -- an Italian term for sea winds [25].

Brickduster (see blickfielder [sic.])

Brick fielder (see blickfielder [sic.])

Brickfielder -- this term was used first in Australia, meaning a dust storm, but from the beginning of the nineteenth century, it has also been the name for northerly hot and dry winds during the summer carrying dust in southern Australia; the air temperature in Melbourne during these kinds of winds may grow to 35°C; also: brick fielder, brickduster [1, 2, 7, 8, 9, 15, 17, 18, 20, 25, 36].

Brisa -- (1) Spanish term for northeasterly winds; (2) on the eastern coast of Brazil and in Venezuela, this is the name applied to the tradewinds; (3) in Montevideo (Uruguay), this is the term for a strong sea breeze blowing from the northeast; (4) in the northern part of Puerto Rico, this means a sea breeze that has been turned back to the east across the mountain ridge along a parallel of latitude by the northeastern tradewinds; (5) in Colombia, this is a light, humid breeze; (6) in the Philippines, this is the term for a northeasterly monsoon; also known as briza [1, 7, 8, 25, 26, 27].

Brisa carabinera (see carabiné)

Brisas -- (1) strong sea winds blowing from the northeast in South America and in the Philippines; (2) southeasterly winds in Montevideo, where they may attain significant velocities during the afternoon hours [1, 9, 17, 25, 26].

Brise -- a term used by sailors for winds favoring navigation during good weather [25, 26].

Brise carabineé (see carabiné)

Brise carabinera -- a sudden strong wind in France and Spain [2].

Brises solaires -- Fr. "solar breezes"; this term is used in Provence for local daily, changeable winds over the coast; from sunrise a weak northeasterly

wind blows, changing after a while to a southeasterly and south-southeasterly wind (this is the beginning of the sea breeze), and at noon a southerly wind blows, after which it moves through the southwest to the west; after sunset the wind weakens; this basic synoptic situation is unchangeable, and the system is undisturbed, and on the following day the cycle then repeats itself [25, 27].

Briso do mar -- Port. "sea breeze"; a sea breeze in southern Brazil [27].

Brisole (see brisote)

Brisote -- term given by the inhabitants of Cuba to a northeasterly wind that is stronger than a normal breeze, above 9 m/sec; more rarely used is the term brisole [1, 2, 7, 8, 25, 26, 27].

Briza (see brisa)

Broboe -- an easterly wind over the northwestern Celebes, arising with a passage of air over the hilly portions of that part of the island; the air loses its moisture on the windward side of the island and crosses to the leeward or protected side as a warm and dry föhn wind; it is mostly observed in the period from June to October [7].

Broeboe -- a strong and dry, at times stormy, eastern monsoon wind in the northern part of the Sperunde Archipelago, above the northwestern Celebes, where it crosses the mountains as a föhn wind; other names: broe broe, broebro, brubru, selatan, and slatan [1, 2, 8, 9, 15, 17, 18, 25, 26, 27].

Broe broe (see broeboe)

Broebro (see broeboe)

Brubru (see broeboe)

Brubu -- (1) a squall-type strong wind in the Indies; (2) a föhn-type wind in the southwestern part of Sulawesi (Indonesia) [2, 4, 7, 8, 26, 27].

Brughierous -- southerly wind in the northern part of the massif of Montagne Noire in France [28].

Brüscha -- (1) a northwestern wind in the Bergell Valley in the Swiss Alps; (2) a valley wind in the Inn Valley (in western Switzerland); (3) a northeastern valley wind in the Engadine (Switzerland), bringing with it pleasant weather, connected with the advection of cold air which is conditioned by the presence of a high over Northern France [2, 7, 9, 17, 20, 25].

Bryza -- this term comes from the French "brise"; the general Polish term for a sea wind (or lake wind), as well as for a land wind on the seashore or on the shore of any inland body of water or a reservoir (lake, large river).

Bryza dolinna ("valley breeze") -- according to the WMO [World Meteorological Organization] definition: "...an anabatic wind which blows for a period of one day along the slopes of valleys in the direction of mountains"; otherwise known as: wiatr dolinny ("valley wind") [10].

Bryza górską ("mountain breeze") -- according to the WMO definition: "...a katabatic wind blowing during the night and during the first daylight hours after sunrise along the slopes of mountains in the direction of valleys and flat lands"; otherwise known as: wiatr górski ("mountain wind") [10].

Bryza jeziorna ("lake breeze") -- a wind similar to a bryza morska ("sea breeze"), but it is weaker than it, blowing across the surface of a large lake toward the shore during the daylight hours, mainly in the morning hours; it appears above Lake Onega, Lake Ladoga, the Great Lakes of North America, and above the Mazurian Great Lakes.

Bryza lądowa ("land breeze") -- according to the WMO definition: "...a wind of shore regions (seashore, lake shore, river shore) blowing during the night from off the land in the direction of a large water surface as a result of the cooling of the land surface" [10].

Bryza lodowcowa ("glacier breeze") -- according to the WMO definition: "...a weak wind blowing night and day along a glacier and down its sides"; otherwise:

wiatr lodowcowy ("glacial wind") [10].

Bryza miejska ("city breeze") -- weak winds blowing during the day, during windless weather associated with a high, from the spaces surrounding a city toward its center, with a simultaneous increase in convection movements above it.

Bryza morska ("sea breeze") -- a wind blowing from off the sea during the morning hours and early afternoon hours, arising as a result of a difference in the level of heating between water surfaces and land surfaces, as well as as a result of temperature differences across the vertical section; it occurs also with a lack of gradients or with weak gradients in a pressure field, as well as in relation to the layout of the shoreline; the frequency of the occurrence of these kinds of breezes is various, depending on the geographical situation; in the intertropical zone, this phenomenon may be a daily one, and in the temperate latitudes, they may appear only during the summer season for several days during the month; the bryza morska ("sea breeze") may be felt, depending on its intensity, up to distances of even 40 km and more.

Buam (see Boam)

Buësh -- a southeasterly wind in Luz-la-Croix-Haute in the Dept. Drôme in France [28].

Buguldiejka -- a strong wind blowing out of the Buguldiej Valley above Lake Baikal [16].

Buhrga -- desert winds blowing during the warm season in Iran [25].

Bull's eye squall -- a sudden squall during good weather on the African coasts, particularly on the southern coast in the environs of the Cape of Good Hope; it owes its name to small isolated clouds that precede the squall [7, 8, 27].

Bura (see bora)

Buran -- Russian term meaning "snow storm" or "blizzard"; it is a very violent northeasterly wind in central and southern Siberia, often blowing during the winter

period; it is connected with the movement of a depression to the east, and it blows with great force and violence over open and flat areas, bringing great amounts of snow both as snowfall and as snow blown up from the ground; although the temperature during this kind of wind does not drop greatly, it does produce a sharp cold; a buran is also observed during the summer season, bringing great amounts of dust, and known as a karaburan ("a black buran"); the winter buran in the Taiga also has the name purga, and in Alaska burga (boorga), and in the USA it is known as a blizzard; in English, it is also known as a white buran [2, 7, 8, 15, 17, 18, 25, 26, 27, 34, 36].

Burga (see buran)

Buria -- Bulgarian term for bora [8].

Burrasca (see borasco)

Burst (see burster)

Burst of the monsoon -- according to the WMO definition: (1) "...a sudden advection of air masses connected with the summer monsoon"; (2) it is also sometimes a sudden intensification in atmospheric factors connected with the summer monsoon; it is also the incipient southwestern monsoon over the western coast of India accompanied by storms and rain squalls [2, 10, 25].

Burster -- (1) a general term for winds that appear suddenly and with great force in Australia; (2) a wind that is usually a southerly wind, bringing significant cooling in Australia; it is connected with the trailing portion of a low moving over southern Australia, while at the same time a high is developing over western Australia; after several hot and dry days accompanied by a brickfielder wind out of the south, heavy cumulus clouds appear, the wind abates, and in the afternoon a wind with hurricane force begins to blow, and in Sydney, the temperature may drop over a period of 30 min from 38°C to 18°C; during the summertime in Sydney, on the average of 32 such bursters may appear; these kinds of winds are frequent in New Zealand and in the eastern part of South Africa, in the environs of Durban; by its very nature, a burster is similar to the American norther; other names are: burst, buster, southerly burster, southerly buster [1, 2, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 36].

Burze pyłowe ("dust storms") -- according to the WMO definition: "...dust and sand particles in great amounts lifted to great heights by a strong and very turbulent wind"; among these kinds of winds are the following: chamsyn, habub, schecheli, samun, irifi, harmatan, and others; these winds make their appearance over the great desert expanses of Asia, Africa, North America, and Australia; the majority of dust storms occur on cold fronts with frequent rains, especially in the northern part of the Sahara; African storms of these kinds carry dust for distances of even several thousand kilometers; this is connected with the great vertical height to which they are carried (6-7 km), and they may even blow across the Atlas and Alps mountains; the vertical reach of Asian storms, especially in Central Asia, is less (1,500-2,000 m), and these kinds of storms rarely carry the dust higher than 3 km; the Asian dust is dropped close to the deserts; this is testified to by the thick levels of loess deposits; in the African deserts, whirlwinds and dust whirlwinds are quite common; these are lacking in the deserts of Central Asia due to the low temperatures; African dust, in distinction to the yellow or brown Asiatic dust, is black, with precipitation from this being transmitted as far away as Central Europe; it has been seen in Wrocław and in Lwów (blood-colored rain, red snow); black storms are also known carrying particles of soil, especially chernozem soil particles, observed in the south of the European part of the USSR, in the USA, and in Australia; white storms are also observed, but rarely, arising over saline or salt-bearing soils [8, 16].

Buster (see burster)

Cacimbo -- a cold sea breeze with a southwestern heading in the environs of Lobito in Western Angolia; it is observed especially frequently during the period from May to August, occurring commonly around 10 o'clock and lasting for most of the day; it brings along with it a temperature drop, an increase in relative humidity, fog, and at times drizzly rain; this wind blows over the cold Benguela current [1, 2, 7, 8, 9, 17, 26].

California norther -- a strong and very dry, northerly dust-laden wind blowing in California (USA); also known as: norther [2, 8].

Cambûeiros -- a cold and gusting southerly wind arising mainly during August over the eastern Brazilian coast close to Salvador; it is the same as an Abrolhos squall in the Abrolhos channel [25].

Camsin (see chamsyn)

Candlemas-crack (see Candlemas Eve winds)

Candlemas Eve winds -- frequent violent winds in England blowing during the winter months, especially in February and March, caused by a strong barometric gradient directed from Western Europe into the Iceland low; the beginning of these winds falls on the Feast Day of the Virgin patroness of Candlemas (the second of February), and for this reason, it is also called a Candlemascrak [1, 2, 8, 26, 27].

Canigonenc -- a westerly wind blowing down from Canigou to Roussillon, cold, dry, and strong; also generally: mistral [8, 28, 29].

Cantaleso -- a northwesterly wind in the environs of Rouergue in France; it blows from the direction of Cantal [28].

Canterbury northwester -- a strong föhn-type northeasterly wind blowing out of the New Zealand Alps onto the Canterbury plain on the Southern Island [2].

Cape doctor -- (1) a strong and cold southeasterly wind on the south coast of

Africa, especially in the environs of Capetown; due to the invigorating effects of the cold and moisture, especially during the summer season, it is called "doctor"; (2) in the literature, this term is met with as an imprecise usage for a wind arising over the northern coast of Crete; (3) a northerly wind, cold, coming off of the highlands onto the coast of South Africa; also: Kapdoctor, Kapdokter, Tablecloth [2, 8, 15, 18, 25, 26, 27, 36].

Carabiné -- a sudden strong wind in France and Spain; it is also known as: brisa carabinera and brise carabineé [2, 8].

Carcanet -- a cold, humid, and strong northwesterly canyon wind carrying precipitation in the mountainous region of the Aude and Capcir Valleys in the eastern Pyrenees; it is also known by the terms: carcenet and carola [2, 8, 25, 28].

Carcenet (see carcanet)

Carola -- a cold westerly wind blowing across the southwestern region of Roussillon; the warm western wind is called ponent; also: carcanet [28].

Cat's nose -- a cold northwesterly wind in England [8].

Cat's paw -- term for a light breeze which manifests itself through small ripples on a water surface; this term is used both in America and Australia [1, 2, 7, 8, 27].

Caurus -- the Latin term for northwesterly winds, used in antiquity; also: corus [25].

Cavaliers -- in Montpeliers, this is the name for the period of the most forceful mistral: the end of March or the beginning of April [1, 2, 26].

Caver -- (1) a weak sea breeze over the Hebrides; (2) a light breeze in western Scotland; (3) a weak wind in Bermuda; also: kaver [1, 2, 8, 25, 26, 27].

Cercius -- Old Latin term for a mistral; it is generally connected with the cers wind arising in the environs of Narbonne in Provence and with the cierzo wind

in the Ebro Valley; it is often also called the circius [25, 30].

Cers -- the term for the mistral in Catalonia and in parts of Provence (in the environs of Narbonne); it is very strong in the Aude Valley by Carcassonne, often accompanied by storms; the wind blows in conformance with the course of the valley and has a southwesterly direction; the cers is cold in the winter and warm in the summer, always dry, having cloudless weather; a similar wind in Spain with a northerly heading is called the cierzo; the cers is known also by the term narbonnais; also: cierce [2, 9, 25, 26, 28, 30].

Céruse -- a relatively dry, strong, and gusting wind out of the east-northeast in the region of Saint-Raphaël-Fréjus in France; during the spring, it brings with it fair weather [28].

Chahriar -- a wind bringing a great deal of moisture into Tehran during the warm season of the year; it is a continuation and protraction of the mandjil wind, which crosses the Ghaghazan and Ghazvin mountains; this wind itself crosses Karadj and Chahriar and blows away from the Teheran District as the bade meh wind [6].

Challiho -- northerly winds in India, sometimes strong, observed often during the spring, mainly in April before the summer monsoon; they may blow for two months at a time [1, 2, 7, 8, 25, 26, 27].

Chamal (see szamal)

Chamsin (see chamsyn)

Champsaur -- a northeasterly wind in Pellafo1 in the Dept. Isère in France [28].

Chamsyn -- Arab. "chamsin," meaning "fifty"; a dry, dust-laden and generally hot (temperatures rise to 40°C) northerly and northeasterly desert wind in Egypt and over the Red Sea; it arises when there are lows moving in an easterly direction over either the northern part of the Mediterranean Sea or over North Africa, and there is a high over upper Egypt; they appear in the middle of March and occur for a period of 60 days after the spring equinox (March-May), usually about 4-6 times; the first sign of the chamsyn is a rapid pressure drop and drop in air humidity;

a wall of heavily dust-laden air approaches from the north and northeast, causing darkness and a considerable reduction in visibility; the wind lasts 2-3 days; also: camsin, kamsin, khamaseen, khamsin, khamsin, lhamsin [2, 3, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 30, 34, 36].

Chandui (see chanduy)

Chanduy -- (1) a sea breeze in Ecuador blowing during the dry season (June to December) every afternoon; (2) a cold mountain wind in the dry season (June to November) in Guayaquil in Ecuador; also: chandui [1, 2, 8, 9, 17, 25, 26, 27].

Charachaicha -- a westerly wind occurring with immense force in the valley with the same name in the region of the Goloustnaya River above Lake Baikal; it is a variety of mountain wind; similar to the sarma, but weaker; also: Charachanka [4, 16, 22].

Charachanka (see Charachaicha)

Chardji -- an easterly wind blowing for the most part in August into the Oman and Persian Gulf; also: charghi [6].

Charghi (see chardji)

Chavière -- a warm northerly wind in Pralognan in Sabaudia; it blows particularly frequently during the fall and brings with it cold weather [28].

Checili (see chili)

Chemal (see szamal)

Chergny -- a northerly wind in Faverges de la Tour, in the Dept. Isère in France; it is a continuation of the sirocco [28].

Chergui -- Arab. "sharq," meaning "east"; an easterly or northeasterly wind blowing mainly over northern Morocco; this is a wind which is primarily dry and carries a great amount of dust; it is hot in the summer and cold in the winter; it is

connected with a high in the Mediterranean Sea area (the isobars are disposed on a parallel with the coastline); also: schergüi [2, 3, 4, 7, 8, 9, 17, 25, 26, 27].

Chergul -- easterly wind in Morocco [2].

Chibasco (see chubasco)

Chibli -- local term for a hot wind with a high dust content, föhn-type, blowing from the Tripolitania deserts; also: ghibli [2, 8]

Chichili -- a warm northeasterly wind in the Algerian part of the Sahara; this is the local term for the sirocco [8, 9, 17, 25, 26, 27].

Chihli -- the term for strong desert winds in Tunisia [35].

Chili -- a warm and dry wind out of southerly directions (from the deserts of North Africa) blowing in the central and northern parts of the Mediterranean Sea; the chili brings a great amount of dust and blows particularly often during the spring when the sea is considerably colder than the desert; this term is used in Tunisia, and it is the local term for the sirocco or the ghibli; also: chechili [3, 4, 7, 8, 9, 17, 20, 25, 26, 27].

Chinook -- (1) term for a dry and hot föhn-type wind blowing out of the west on the eastern slopes of the Rocky Mountains (Canada, USA); this term was initially used in the states of Oregon, Washington, and Columbia [sic.], where the wind blows from the land occupied by the Chinook Indians; it appears frequently in the winter, and it can occasion an increase in temperature by 10-15°C over the course of a quarter-hour, which leads to a rapid evaporation and melting of snow; this explains the use of the term snoweater; it is observed at other times of the year, in the summer it hastens the ripening of plants; its velocity may vary: it may be a gentle wind or a hurricane, lasting 3-4 days, and it may appear at any time of the day; the chinook may be observed over a distance of 400-1,000 km, it may penetrate 230 km into the prairie, it is accompanied by a large quantity of dust in the air, it carries away the most worthwhile elements of the soil; it is characterized by a greatly extended föhn cloud bank called a "Chinook arch"; the base of the bank may be at an altitude of 3-4 km and be 800-1,000 m long; this is caused by the ascending

warm and humid sea air; the thickness of the cloud may extend to 1,500 m and more; the wind may be felt up to altitudes of 10,000 m; (2) this same term is used for a northwesterly wind blowing from the direction of the Pacific and to the West Coast of the United States; this wind is humid and warm during the winter, cold during the summer, with cloudy and rainy weather [2, 4, 7, 8, 9, 15, 16, 17, 18, 25, 26, 27, 34, 36].

Chlouk -- a dry and hot southerly wind (a desert wind) in the Levant; Russ. shluk [3].

Chmurzyca (see huragan ["hurricane"])

Chocolate gale (see chocolatero)

Chocolatero -- a moderate northerly wind in the region of Mexico and the Gulf of Mexico; otherwise: chocolate gale [1, 2, 8, 25, 26].

Chocolatta north -- a northeasterly squall in the West Indies; also: chocollatta north [2, 8].

Chocollatta north (see chocolatta north)

Chołod ("kholod," Russ. "cold") -- in the Baikal region, when the land becomes colder than the lake, the velocity of the winds blowing in the direction of the lake increases, with maximum velocities being attained at daybreak, carrying the general term chołod [22].

Chom -- local term for the sirocco in northern Africa [2, 8].

Chortiartis (see chortiatis)

Chortiatis -- a local katabatic wind blowing from the Chalkidike mountains into the northeastern part of Salonika; it is similar to the Wardalak wind which is a bora type; also: chortiartis [9, 17, 26].

Chota barsât -- the rainy season of the year in India before the onset of the monsoon proper [25, 26].

Chouillère -- a northerly wind in the environs of Corrèze in France; it brings rain precipitation during the spring and in the summer [28].

Chouillère haute -- an easterly wind, always dry, blowing from Corrèze in France [28].

Chubasco -- an easterly wind in the nature of a squall, with intense storms, on the eastern coast of Central America between Costa Rica and the Cape of Santa Eugenia (the California peninsula); it usually appears in the rainy season, particularly often in May, and other maxima are observed in October; it commences in the early afternoon with the appearance of clouds over the mountains which lower and thicken, and around 1600 hours it is completely replaced by a sea breeze (blowing from the southwest), and a storm begins which usually lasts around 20 hours; also: chibasco, chubascos, chubaxo, chubaxos [1, 2, 7, 8, 9, 15, 17, 18, 23, 25, 26, 27].

Chubascos (see chubasco)

Chubaxo (see chubasco)

Chubaxos (see chubasco)

Chudras (see churada)

Churada -- a violent rainstorm on the Marianas from the northwest during the winter monsoon period (from November to April or May), generally strong from January to March; also: chudras, churadas [1, 2, 7, 8, 9, 17, 25, 26, 27].

Churadas (see churada)

Churer express -- a sudden advection of cold air with the rapid formation of fog in a valley in the locale of Chur in the Alps; the valley gradually fills with fog from its bottom to the top [25, 26].

Chychawica (see huragan)

Chychoł (see huragan)

Cierce (see cers and mistral)

Cierzo -- Span. "northwind"; this is a term for the mistral in the Ebro Valley; it is a dry and cold land wind blowing from the northwest (following the course of the valley) during the cold half of the year; this term comes from the Lat. "circius" [2, 8, 9, 17, 18, 25, 26, 27, 29].

Ciota (see wir powietrzny ["whirlwind"])

Circius (see cercius)

Cisampe -- a generally strong mistral in southern France; also: cisampo, zizampe [9, 17, 25, 26].

Cisampo (see cisampe)

Cissore -- the local term for a warm and rainy southeasterly sirocco blowing from the Rodan Delta [2].

Cluzas -- a warm southerly wind in Saint-Offange in Sabaudia; it brings a light rainfall [28].

Coche -- cold and dry northerly wind in Allemont in the Dept. Isère in France, bringing fair and good weather [28].

Cock-eyed Bob -- a squall-type wind from the northern, northwestern, and western coasts of Australia; it is most often observed from December to March; otherwise written: cockeyed Bob [2, 7, 8, 27].

Cockeyed Bob (see cock-eyed Bob)

Cold waves -- the advection of cold air (behind a low) on the eastern and southern coasts of the USA and in the Gulf of Mexico; also: norther [25].

Colla -- a southwesterly and south-southeasterly wind with violent gusts in the Philippines, lasting several days, bringing rainy and stormy weather during the summer monsoon period; its velocity never exceeds 20 m/sec, it arises when a tropical

cyclone shifts slowly to the north, or during the duration period of a cyclone with a weakly developed center; also: Baguio, colla tempestada [2, 8, 9, 17, 18, 25, 26, 27].

Colla tempestada (see colla)

Collada -- a strong wind with velocities of 14-22 m/sec, blowing from the west or from the north into the Gulf of Upper California and from the northeast into the Gulf of Lower California (Baja, California); also: collado [1, 2, 7, 8, 25, 26, 27].

Collado (see collada)

Condas -- hot and dry northerly winds in the Pampas of South America; connected with a high whose center is located to the north [12].

Contraste (see contrastes)

Contrastes -- Span. "contrast, opposition"; winds blowing from opposite directions in places located at only slight distances from each other; these kinds of winds are frequent in the western part of the Mediterranean Sea, and especially in the Strait of Gibraltar and on the Provence coast, during the spring and autumn with the passage of a cold front when it pauses for a longer time over the foothills; the air masses shift from different (opposite and contrary) directions: from off the European Continent and from the African deserts; also called: contraste [2, 7, 8, 9, 17, 25, 26, 27, 35].

Cordonazo -- (1) a strong, short-lived tropical cyclone (hurricane) over the western shore of Central America and Mexico, passing to the northwest in the area to the north of about the 28° North latitude; it rarely appears, about once in several years, at the beginning of October; (2) a short-lived squall on the Mexican coast; (3) a northerly wind accompanied by a hurricane over the western coast of Mexico [1, 2, 8, 15, 18, 26, 36].

Cordonazo de San Francisco -- Span. "large rope of San Francisco"; a northerly wind of hurricane force over the western coast of Mexico and further to the north up to San Francisco, appearing in the period from June to November; it is connected

with a shift in a tropical cyclone near the coastline; often lasting about eight days at the beginning of October (the 4th of October is the Festival of San Francisco or Saint Francis) [2, 7, 8, 27].

Cordonazos -- a term for tropical whirlwinds over the western coast of Mexico and Central America; also: cordonazo, cordonazo de San Francisco, coronazo [9, 17, 25].

Coromell -- a night land breeze in a northerly direction, appearing regularly in the period between November and May in the environs of La Paz in the California Valley [1, 2, 7, 9, 17, 25, 26, 27].

Coronazo (see cordonazos)

Corus (see caurus)

Cosidetti -- a strong westerly wind, frequent during the spring, in the Gulf of Taranto [35].

Cow quaker -- a May cyclone in England [2].

Cowshee (see kaus)

Crachin -- a fog in the Gulf of Tonkin (Bakbo) during the period of the northeasterly monsoon (January-February); also: crachins [2, 8, 9, 17, 25, 26].

Crachins (see crachin)

Criador -- Span. "Host, Creator"; this term is used in Northern Spain for western winds bringing desired rainfall [7, 8, 9, 17, 18, 25, 26, 27].

Crivat (see crivet)

Crivet -- a wind out of directions from the north to the east with the character of a bora in Rumania and the southern part of European Russia; this wind is dry and cold in winter and hot in summer, appearing when there is a high over the northeastern part of Europe and a low is developing over the Mediterranean Sea; it is

observed at all times of the year, most often in June and July; in Bucarest, the crivet makes up 20% of all the winds; also: crivat, crivetz, krivitz, krivu [1, 2, 7, 8, 9, 17, 18, 20, 25, 26, 27].

Crivetz (see crivet)

Croix-de-Fer -- a cold northeasterly wind, especially in the winter, in Saint-Jean-d'Arves in Sabaudia causing cloudy weather [28].

Custard wind -- cold easterly winds on the northern coast of England [1, 2].

Cyclone -- a term for tropical cyclones over the Indian Ocean according to the Meteorological Glossary, comp. by D. H. McIntosh, London, 1963.

Cyclonette -- a rarely used term for tornado (trąba powietrzna) [8].

Cyklon tropikalny ("tropical cyclone") -- the WMO definition: "...a cyclone of tropical origin with a small diameter (several hundred kilometers) with a minimum on the outside sometimes lower than 900 mbar, with very strong winds and rainfall, sometimes with storms. It surrounds a center called the 'eye of the storm' with a diameter on the order of several tens of kilometers with light winds and a more-or-less overcast, cloudy sky"; a general term for cyclones over oceans in the tropical zone, forming mainly above the western portions of oceans (with the exception of the southern Atlantic and the eastern portion of the southern Pacific) and having an influence on the eastern and equatorial regions of the continents; they appear in the southern and southeastern parts of the North Atlantic, including the Caribbean Sea, the Gulf of Mexico, over the North Pacific (the region from the west coast of Mexico and the western portion of the North Pacific), as well as in the Philippines, the China Sea, the Bay of Bengal, the Arabic Sea, the southern part of the Indian Ocean (from the direction of the Madagascar coast and over the northwestern coast of Australia), the South Pacific from eastern Australia to about 140° East longitude; tropical cyclones are classified according to their intensities: 1 -- tropical depressions with wind velocities up to 17 m/sec; 2 -- tropical storms, velocities from 17.5 to 32 m/sec; 3 -- hurricane or typhoon, greater than 32.5 m/sec; in various parts of the oceans, these tropical cyclones have other names: in the North Atlantic, above the Caribbean Sea and the Gulf of Mexico, they are hurricanes; in Haiti, it

is a taino; over the western coast of Mexico, cordonazo; in the Philippines, a Baguio; in the Indian Ocean, a cyclone; in the western part of the North Pacific and over the South Pacific, it is a typhoon; and in Australia, it is a willy-willy [8, 25].

Czang (see Afganiec)

Czarcie gówno ["devil shit"] (see wir powietrzny ["tornado, whirlwind"])

Czarcie łayno ["devil shit"] (see wir powietrzny ["tornado, whirlwind"])

Czarny Jasiu (see wir powietrzny)

Czart ["the devil"] (see wir powietrzny)

Czilikskij wietier ["Chilik wind"] -- a cold katabatic wind out of the east and northeast passing over the narrows of the river valley of the Il' River (Translator's Note: This is a Russian name] for a distance of 40 km in an easterly direction from the locale of Chilik, where 80 days of wind with storm velocities have been recorded in the space of one year [4].

Czterdziestodniowy szamal ["the 40-day szamal"] (see also szamal)

D

Dadur -- a local wind in the Ganges River Valley blowing from the summit of Siwalik in the neighborhood of Hardwar in India [2, 8].

Dahatoe (see aloegoe)

Dancing dervish (see wir pyłowy ["sand whirlwind"])

Dancing devil (see wir pyłowy ["sand whirlwind"])

Datoo -- sea breeze over Gibraltar blowing from the west (from across the Atlantic) [7].

Davoser Talwind -- a valley wind in Davos in Switzerland [25].

Deaister (see doister)

Depéq -- a strong wind over Loet Tawar (Sumatra) during the southwest monsoon season [8].

Desert devil (see wir pyłowy)

Devil (see wir pyłowy)

Dèvoluy -- southern wind in Pellafoi in the Dept. Isère in France [28].

Diabelski młyn ["the devil's mill"] (see also wir powietrzny ["tornado, whirlwind"])

Diabelski młynek ["the devil's little mill"] (see also wir powietrzny ["tornado, whirlwind"])

Diabelskie wesele ["the devil's wedding"] (see also wir powietrzny ["tornado, whirlwind"])

Diabeł [same as above] (see wir powietrzny)

Diable wesele [same as above] (see wir powietrzny)

Dijonnaise -- a northeasterly wind (from the direction of Dijon) in Gigny in the Jura, bringing nasty weather [28].

Dimmerföhn -- a very rare form of the föhn on the northern slopes of the Alps, connected with a very strong southerly wind at great altitudes [2, 8, 9, 17, 25, 26].

Diver's storm -- a strong stormy southerly wind in Alexandria, blowing at the end of winter, particularly in January, bringing a drop in temperature and precipitation [25].

Doctor -- (1) popular term for a sea breeze in the tropical region: in western India, South Africa, Jamaica, and Australia; (2) it has the term harmatan on the Guinea, and it has a desiccative effect, bringing about an improvement in the hot and humid weather [7, 8, 15, 18, 25, 27, 36].

Doister -- a strong storm off the sea in Scotland; also: deaister, dyster [2, 8].

Doldrums -- English term used by sailors for the calms in the equatorial zone of low pressure; Ger. Mallungen [25].

Doron de Bozel -- easterly wind in Bozel in Sabaudia, blowing in the early spring and autumn; it is a dry wind bringing nasty weather, after which there usually follows a period of good weather [28].

Dramudana -- a northeasterly wind in Bulgaria; it means "elephant wind" [25].

Dramundan -- a term for the northwesterly mistral in Perpignan in southern France; this wind is connected with a warm low over the Gulf of Lyon [8, 9, 17, 25].

Drévent -- a mild and humid westerly wind in Morvan in France [28].

Droit vent -- a term for a rainy wind in the area of Lengres in France [28].

Dryth -- a southerly or easterly dry wind in England [2, 8].

Dschani (see džauī)

Dschauī (see džauī)

Düsenwind -- a strong easterly-northeasterly wind blowing out of the Dardanelle mountains over the Aegean Sea [2].

Dust devil (see wir pyłowy ["dust whirlwind"])

Dust whirl (see wir pyłowy)

Dynarski fen ["Dynar föhn"] -- a dry and warm northwesterly or westerly wind in the river valleys of the Sawa Basin from Sarajewo to the Karawanken; generally: jug [4].

Dyster (see doister)

Dziki Afganiec (see Afganiec)

Dzienny wiatr ["daily wind"] -- a general term for the winds blowing during a day: sea breeze, lake breeze, valley wind, and others.

Džauī -- strong and hot dust and sand storms blowing sometimes daily during June in the noon and afternoon hours in the western and southern Sahara (in the environs of Arauan), lasting on the average 10-30 min; also: dschani, dschauī [9, 17, 25, 26, 27].

Džebili -- dry föhn winds in North Africa; during northwesterly and westerly winds, the north and west slopes of the mountains receive a great amount of precipitation, and a dry and warm wind blows on the southern and eastern slopes; during southern winds, masses of desert air pass over the mountains and descend on the coast in the manner of a föhn [4].

E

Ebe -- a dry and hot southwesterly and southerly wind blowing during the summer season in the Central Asian Steppes through Brama Džungarska between Alatau Džungarsky and Barliko and (blurred text) Alakul; also: ibe [4, 9, 25, 26].

Ecir -- a northeasterly and northwesterly wind in the region to the south of Puy-de-Dôme, in the environs of Mont-Dove, Césallier, and Cantal [25, 28].

Ecnephias -- a term used for a storm in the region of the Mediterranean Sea [8].

Egipska kažň ["Egyptian punishment"] (see also bakinskij nord)

Egyptian wind -- westerly wind in Egypt and in the region of the Suez Canal, frequently blowing during the winter, accompanied by fog and great amounts of dust [2, 8].

Eiros (see euros)

Eissero -- term for a humid and hot southeasterly wind in Crau and the Rhône Delta, which blows at the end of the autumn and at the beginning of winter; this wind is similar to the sirocco [8, 25, 28].

Ekbatis (see emvatis)

Eknephias -- a storm wind that occurs with cloud banks [9, 17, 25].

Elchitane -- Arab. "shatan"; a nighttime northeasterly wind blowing in the Algerian part of the Sahara [27].

Elbtalwind -- a strong stormy and dry south-southeasterly wind in the Elbe Valley above Dresden; also: Böhmischer Wind ["Bohemian wind"] [25].

Elephant (see elephanta)

Elephanta -- a strong southeasterly or south-southeasterly wind blowing in September and October, with rain and storms, on the Malabar coast of India; it indicates the beginning of the dry season, the end of the southwesterly monsoon; also: elephant, elephanter [2, 7, 8, 9, 17, 25, 26].

Elephanter (see elephanta)

Elerwind -- a wind in the Sun Valley, to the north of Kufstein in the Tyrols [8].

Ellipse wind [sic.] -- Eng. term for a wind occurring during an eclipse of the sun [2].

El Maestral -- a frequent strong northwesterly wind in the northern section of the Spanish Mediterranean coast [35].

Elvegust -- cold winds occurring in the Norwegian fjords; also: sno, evelgust [2, 4, 7, 8, 9, 17, 20, 25, 26].

Embat -- a fresh and mild sea breeze out of northerly directions, which rock the ships sailing down the Rhône [28].

Embata -- a local wind with a direction contrary to the northwesterly trade winds at ground level on the leeward side of the Canary Islands, resulting in a backwash or swirl effect; also: batis [2, 8, 9, 17, 25, 26].

Embatis (see emvatis)

Emvatis -- Gr. "importuning, pressing"; a sea breeze blowing on the Greek coast during the summer season; it begins in Athens around 1000 hours, bringing a cooling in the season of greatest heat; the Ancient Greeks called it tropaia, also: batis, ekbatis, embatis, emvatis, imbat; and in Ital. imbatto [4, 9, 17, 25, 26, 27].

Emvatis (see emvatis)

Encombres -- a cold northerly wind blowing in Saint-Martin-la-Porte in Sabaudia, and bringing good weather [28].

Erler Wind -- a mountain wind in the Bavarian section of the Inn Valley; this term comes from the Austrian region of Erl lying at the foot of the Zahmen Kaisers [9, 17, 25].

Espagne -- French word for "Spanish"; a southerly and southwesterly wind in the Montauban and Luchon region in France; similar to vent d'Espagne in Roussillon [25, 28].

Esperance doctor (see Perth doctor)

Etesian (see etezja)

Etesians (see etezja)

Etesian wind (see etezja)

Etesians wind (see etezja)

Etezien (see etezja)

Etezja -- Gr. "etesios," which means "every year"; (1) a wind out of the northerly directions blowing during the summer (from May to October) over the eastern portions of the Mediterranean Sea, mainly over the Aegean Sea; it is especially well developed in July and August, in its origin it is similar to a monsoon, and the overall wind is dry and hot; in some neighboring areas (Algeria and Tunisia), a fog predominates and the temperature drops; it blows for about 40 days during the year; over the open sea, it is constant and blows with moderate velocities, in the night it weakens; (2) the Romans used this term for the southwesterly monsoon over the Arabic Sea; also: etesian, etesians, etesian wind, etesians wind, meltém (a Turkish term); generally: garbin [4, 7, 8, 17, 18, 25, 26, 27, 36].

Etschwind -- southerly winds in the Etsch Valley in the Tyrols [25, 26].

Eucla doctor (see Perth doctor)

Eurakulon -- a storm with cyclone force off the Cretan coast (John 27:14, in

the interpretation of S. Kowalski, Warsaw, 1957).

Eurakýlon -- this term comes from euros (an easterly wind in Greek) and aquilo (north wind in Latin). This is a northeasterly wind, often of storm force, on the southern coast of Crete; the term euryclydon is also used, though imprecisely; in the literature, this term is used mistakenly for winds arising in other places, for example for a southeasterly wind (Cape doctor) in the environs of Capetown [25].

Euraquilo -- a northeasterly or north-northeasterly wind, often of storm force, in Arabia and the Near East, as well as off the coast of Crete; also: eurakwilo, euroaquilo, euroclydon [2, 8, 36].

Eurakwilo (see euraquilo)

Euroaquilo (see euraquilo)

Euroclydon (see euraquilo)

Euros -- (1) this is the term given by Homer to an easterly wind; (2) Aristotle used this term for a northeasterly wind; (3) in Greece, these are southeasterly winds with rain and squalls; also: eiros [2, 8, 9, 15, 25, 26].

Euryclydon (see eurakýlon)

Evelgust (see elvegust)

Ewgey -- a south-southeasterly wind at the mouth of the Džhungarskiy Brama, as well as to the east over Lake Alakol', blowing during the cold season of the year; this wind is quite strong, with velocities reaching 60-80 m/sec, arising when there is an extended high spread over eastern Kazakhstan, Siberia, and Mongolia, and lows are situated over western Kazakhstan; easterly and southeasterly winds blow over the whole area of Džhungaria, which in Brama Džhungarska attain significant velocities due to a tunnel effect; in the winter, this phenomenon is quite frequent: 18 days during the month, lasting 1-7 days; often after long periods of frost, they may occasion a thaw and reduce the overcast and cloudy weather [4, 5, 20].

Eyalais -- a cold easterly wind in Joyeuse in the Dept. Ardèche in France,
a forerunner of snow [28].

F

Falscher Föhn (see Bregenzer Fallwind)

Farou -- (1) an irregular and mild southerly wind in the southeastern part of the Dept. Ain in France, blowing the whole year, more frequently during the autumn; (2) a term for the southwesterly wind in Saint-Thibaud-de-Coux in Sabaudia, that blows mainly during the springtime bringing rain and hail; the term probably comes from French farouche, meaning "wild" [28].

Favogn (see fen ["föhn"])

Favonius -- Old Latin term for a westerly wind, corresponding to the Gr. zephyros [9, 25].

Feclaz -- a cold northwesterly wind in Les Déserts in Sabaudia, blowing during the winter season, at which time it brings snow [28].

Fen ["föhn"] -- this term comes from either the Latin favonius, a warm westerly wind, or from the word "fon," which in Gothic means "fire"; the WMO definition: "...a warm and dry wind on the leeward side of mountains"; heated and dried-out air is the result of adiabatic heating as the air descends from the mountains; this occurs as a result of air flow over the mountain ridge due to pressure differences; the original term "Föhn" is used to designate a föhn out of the south in the Alps; föhns arise in all mountain systems, where they have various local names: Chinook in the Rocky Mountains, zonda in Argentina, puelche in the Andes, ljuka in Carynthia, halny in Poland, austru in Rumania, favogn in Switzerland, and others, for example Alpenföhn [4, 7, 8, 9, 10, 15, 18, 25, 26, 27, 34, 36].

Feuillet -- a springtime, quite warm southerly wind in Saint-Pierre l'Albigny in Sabaudia [28].

Finsterniswind -- Ger. term for a wind that occurs during a total eclipse of the sun [25].

Firnwind (see wiatr lodowcowy ["glacier wind"])

Flan -- a sudden wind gust off the land in Scotland [2, 8].

Flanders storm -- a wind out of the northerly direction with heavy snowfall in England [2, 8].

Föehn -- warm and dry easterly wind in Aillon-le-Jeune in Sabaudia, observed during the spring and autumn [28].

Foehn storm -- a strong föhn with violent storms, arising in the Bavarian Alps in October [2, 8].

Fog wind -- C. Troll gave this term to humid easterly winds descending from the eastern Andes in the region to the east of Lake Titicaca; to the west they attain storm force; also: Ger. Nebelwind [8].

Föhn (see fen)

Foracan (see hurricane)

Foracane (see hurricane)

Forano -- term for a sea breeze in Naples [2, 8].

Forty saint's storm -- a southerly stormy wind in Greece blowing in March before the spring equinox [2, 8].

Fouis -- a local wind in Foix and Beziers in France [28].

Fovan -- a dry and oppressive wind in England and on the Isle of Man [8].

Frank -- sailors' term for steady winds [2, 8].

Fremantle doctor (see Perth doctor)

Friagem -- southerly and westerly winds bringing cooling, especially during the rainy season (April to June), in the central and upper region of the Amazon and

in eastern Bolivia; under this term is also included the period of cold weather in this region; also: vriajem, vriajems [1, 2, 8, 18, 25].

Fukanudo -- this is the term for a wind connected with a typhoon in the prefecture of Toyama in Japan [19].

Furacan (see hurricane)

Furacana (see hurricane)

Furacane (see hurricane)

Furagan (see huragan or wir powietrzny ["tornado, whirlwind"])

Furiani -- strong short-lived southeasterly winds varying to southwesterly winds, going before storms at the mouth of the Pad River in the northern Adriatic [2, 25, 30].

Furicane (see hurricane)

Furicano (see hurricane)

G

Gaign -- a mountain wind inducing the formation of clouds above mountain peaks in Italy [2].

Galerna -- (1) a stormy northeasterly wind often observed after a hot day during the evening hours in the summer and autumn over the northern Spanish coast; (2) a northeasterly squall wind bringing with it humidity and rain over the English Channel and the French Atlantic coast, connected with the trailing portion of a low over the channel; also: galerie, galerno, giboulè, gibouleè [2, 8, 9, 17, 25, 26].

Galerie -- (1) a northwesterly wind in Deux-Sèvres, Touraine, Bas-Berry, Béarn, and Zuerzy in France; also known as: galerno; (2) a strong, cold and humid north wind in Orleans; generally also: galerna [2, 8, 9, 17, 25, 26, 28].

Galerno (see galerna)

Gales -- the weak advection of cold air from the north during the winter over the north coast of Australia [25].

Galibièrè -- a wind descending from Galibier, felt all the way to Briançon in France [28].

Galize -- a strong and gusty easterly wind blowing in the Val-d'Isère Basin in Sabaudia during all seasons of the year; it is humid and it brings snow and rain precipitation [28].

Gallego -- a wind blowing from Galicia, cold, a penetrating northerly and northwestern wind blowing off the Sierra de Cantabria mountains onto the León plateau in Old Castile [2, 7, 8, 25].

Garbé -- Catalan term for sea winds; also: marinada [9, 25, 26].

Garbi -- a term of Arabic origin denoting a southwesterly wind in Roussillon,

humid and warm, blowing particularly frequently during the summer; generally also: garbin [2, 8, 23, 25, 28].

Garbin -- a term of Arabic origin denoting a westerly wind; (1) a sirocco-type wind, of anticyclonic origin over the southern Adriatic and the Aegean Sea, commonly directed toward the south or the southwest, blowing at the frontal edge of a low and moving to the east across the Mediterranean Sea; when it contains dust from the Sahara, a rain called a "red rain" falls on the mountainous coastlines; also: gharbi; (2) a sea breeze in Catalonia blowing out of the east; other variants for this term are: garbi, garbino, garbis, gherbine, gherbino; (3) winter winds directed out of the south to the west, carrying cyclonic precipitation onto the Atlantic coast of Morocco; also: gharbi; (4) a sea breeze blowing out of the southwest during the summer in Languedoc and Roussillon, commencing usually at about 9 or 10 o'clock in the morning, attaining a maximum around 1400 hours, and terminating around 1700 hours; it brings with it a pleasant cooling during the season of greatest heat; sailors call it the "lazy breeze" when it begins late, or the etezja, because it blows in the summer [2, 7, 8, 25, 27, 28].

Garbino (see garbin)

Garbis (see garbin and lips)

Gardi -- general term for southerly winds in the Bay of Yalta; the southeasterly wind is called punento-gardi, and the southwesterly wind is the oster-gardi [20].

Garennas (see bent de Darré)

Gargal (see grec, gregale)

Garm-ser -- a hot wind; an easterly wind in the Turkestan portion of Afghanistan; it is an Afghan sirocco; it blows from the direction of the Hindukush and probably becomes the first phase of the bad-i-sad-o-bistroz; also: garmsil [27].

Garmach -- a wind blowing at the end of the autumn over the northern slopes of Mount Elbrus (over the Caspian Sea), having features of a föhn, causing an increase in temperature in the winter [6].

Garmsil -- this term comes from the Tadjik, "garmsel," meaning "hot wind" or "storm"; a hot and very dry föhn-type wind blowing from the north or the east, sometimes also from the west, with great velocity (an average velocity of 5-10 m/sec), sometimes with hurricane velocity; it is connected with the approach of a cold front toward the mountains of Central Asia: Koped Dag, Tian-Shan, occasioning a temperature increase up to 40°C, a drop in relative humidity to 5-15%; lasting from several hours to 3-4 days, on the average 2 days; causing dust storms and atmospheric turbidity; also: garm-ser, harmseal, harmsil [2, 4, 5, 16, 20, 34].

Gebli (see ghibli)

Geg -- a dust whirlwind in the Chin wilderness in Tibet [2, 8].

Gelbe Winde (see żółty wiatr ["yellow wind"])

Gending -- dry winds with a föhn-like character on the plains of northern Java, blowing during the southeastern monsoon season [2, 8, 9, 15, 17, 25, 26].

Genève -- a wind blowing over the southwestern shore of Lake Geneva (from the Geneva direction) and to the foothills of the Jura [28].

Gharbi (see garbin)

Gharra -- winter squall storms from the northeast over the coast of the Bay of Syrt in Libya, connected with the advection of cold polar-continental air out of Eastern Europe, which having passed over the warm Mediterranean Sea, takes on a labile equilibrium, causing the onset of sudden storms and heavy rain over the northern coast of Africa [2, 9, 25, 26].

Ghasiyah -- a squall-type and bora-type wind descending into the eastern portions of the Mediterranean Sea, especially in the Bay of Iskenderun; also known as: ragut, rageas [2, 8].

Gherbine (see garbin)

Gherbino (see garbin)

Ghibli -- a wind with directions varying from the southeast to the southwest in Tripolitania, blowing out of the Sahara toward the coastlines and blowing occasionally with great violence; it lifts great amounts of dust into the very dry and hot air, and as it passes over the mountains it has a föhn character; it most frequently blows during the spring (March-May), and rarely during the autumn (August-October); other variants of the term are: chibli, gebli, gibla in Morocco, gibleh, gibli, guebli, guibli, kibli, qibla [2, 3, 4, 7, 8, 9, 17, 18, 25, 26, 27, 29, 36].

Gibla (see ghibli)

Gibleh (see ghibli)

Gibli (see ghibli)

Giboulé (see galerna)

Gibouleé (see galerna)

Gibraltarski wiatr ["Gibraltar wind"] -- a wind blowing with considerable force over the Strait of Gibraltar [16].

Giermich -- a föhn-type westerly and southwesterly wind in the southwestern portion of the Caspian Sea, appearing only rarely (in Astara on the average of six times per year: four times during the winter, and once each time during the spring and autumn), but it causes a great temperature jump and a lowering of humidity [32].

Girłowoy wietier ["Girlovoy wind"] -- a northeasterly wind blowing in the Don River Valley, causing a wind-induced surge of water in the river mouth (that is, it drives the water before it) [20].

Glarner wind -- a föhn coming out of various southerly directions, descending from the Glarner Alps into Zurich [25].

Glave (see glaves)

Glaves -- a föhn wind on the Shetland Islands; also: glave, glavis [8].

Glavis (see glaves)

Gletscher Wind (see wiatr lodowcowy ["glacier wind"])

Glutwind -- Ger. term for the sirocco, meaning: "hot wind" [17].

Głupi Jasio ["stupid john"] (see also wir powietrzny ["tornado, whirlwind"])

Głupi Jaś ["stupid john"] (see also wir powietrzny)

Gobar -- a dry, dust-laden föhn wind in Ethiopia [4].

Gohreh -- a wind similar to a bora, blowing with great force through the long Fahlian Valley in the direction of Mamassani (Fars) in Iran [6].

Golfada -- a strong storm over the Mediterranean Sea [2, 8].

Gorące wiatry [Pol. "hot winds"] -- general term for winds which are distinguished by their high temperature and low relative humidity; these are summer desert winds, and in extreme cases they may be föhn winds; generally also: hot winds [8].

Görlitzer Wind -- Ger. "gangrenous wind"; a stormy south-southwesterly wind blowing between the Ore Mountains and the Sudeten Mountains over the Žytava Depression, down the valley of the Oder-Neisse River; it is connected with a high over the Bohemian Plateau and a low over northern Germany [25].

Górniak -- a local term for a night land breeze over Lake Issyk-Kul [34].

Górny -- a westerly and northerly wind blowing most frequently during the late autumn (November-December) over Lake Baikal; it is a Sarma type [22].

Gowh's storm (see gowk storm)

Gowk storm -- a storm or squall in England appearing at the end of April and the beginning of May; also: gowh's storm [2].

Graégos -- a dry and warm northeasterly wind in the summer season, and a cold one in the cold season, blowing in Greece [25].

Grand vent -- Fr. "great wind"; a westerly wind with long periods of rain in Auvergne in Central France; also: traverse [2, 8].

Grand-Châtelard -- a cold northerly wind blowing in Jarrier in Sabaudia during the winter season [28].

Grauer nord-ost (see nord-este-pardo)

Grawitacyjny wiatr ["gravitational wind"] -- a wind, or one of its components, directed downslope as a result of the greater density of the air in it than of the air at the same altitude and for great distances from it; this term is used when the density difference is the result of the cooling of the slope; a mountain wind is an example of a gravity wind; descending winds are phenomena on a larger scale than gravitational winds: cold air from out of or off of mountains is directed into a significantly warm region, for example toward a sea body; an example of a descending wind is a bora [8].

Great shamal (see szamal)

Grec -- a term coming from antiquity, used to name a northeasterly wind blowing from the direction of Marseilles, which was a Greek colony at the time; (1) a northeasterly wind over the Côte d'Azur; in Provence, it has the name grégau; in the Rhône River delta, Languedoc, Roussillon, where it blows mainly in April and October, it is known as the grégai or gargai; in Corsica, it is the grécale, it is dry and cold, bringing frost; on the Côte d'Azur, it is humid and rainy; (2) a term for a periodic southeasterly wind in the region of Marvejols in the Dept. Lozère in France; also generally: Greco, Gregale [25, 28].

Grec de la Côte d'Azur (see Grécale)

Grécale -- a northeasterly wind on Corsica, also: Grec, Grec de la Côte d'Azur; also generally: Greco [2, 8, 27, 28].

Grecco (see Greco)

Grecco levante (see Greco)

Greco -- Ital. "wind from the direction of Greece"; (1) a strong stormy northeasterly wind of the bora type in the central part of the Mediterranean Sea, especially over Malta; (2) a cold and dry wind on Corsica; (3) a northeasterly wind in northern France; (4) a northeasterly wind connected with a very strong Adriatic bora that crosses the Apennine Peninsula and the Tyrrhenian Sea and is felt as far away as Corsica and Sardinia; other local terms are: Grec, Grec de la Côte d'Azur, Grécale, Grecco, Grecco levante, gargal, gregale, gregolia, grégal [2, 9, 25, 26, 29].

Grégal -- a land breeze in the region of Marseilles blowing during a cold day in a synoptic situation with a very small barometric gradient; it blows with a small velocity (4-5 m/sec); this term is used by fishermen, and the farmers call it the plaouvinaou ("plaouvino" means "hoar-frost"); also generally: graégos, Greco [9, 26, 27, 28].

Grégal Côte d'Azur (see gregale)

Gregale -- this term is used for a northeasterly wind in the central and western parts of the Mediterranean Sea and over an extended area of Europe; it corresponds to the Greco, levanter, and the Lombard, connected usually with a high over Central Europe and the Balkans and a high over the northern part of the Mediterranean Sea or North Africa, lasting up to 5 days; or, with a shift in the low to the north or to the northeast, it lasts 1-2 days; it is frequent in the winter, brings cold and changeable weather; the main variant of the gregale is the grégal Côte d'Azur, humid, bringing precipitation to the Mediterranean coast of France; in the environs of Roussillon, it is called the gargal, in Provence and Languedoc, the grégau, in Spain and on Minorca, it is the guergal, and on Corsica it is the Grécale; also: Grec, Grecco, gregolia [1, 2, 8, 15, 18, 25, 26, 27, 29, 35, 36].

Gregales -- strong northeasterly winds on the northeastern coast of the Mediterranean Sea, accompanying polar air with very changeable weather during the spring and autumn seasons [7].

Grégau (see gregale, Grec)

Gregolia -- this term is applied to northeasterly winds in the eastern portion

of the Mediterranean Sea; also generally: Greco, gregale [25].

Gregori Wind -- an easterly wind in the Tyrols blowing in March and April [2, 8].

Gregos (see graégos)

Grenoble -- a wind blowing through the canyons and ravines of Sabaudia [28].

Greus -- northeasterly wind on the Bulgarian coast of the Black Sea [20].

Grewo (see klimat)

Grewo-tramontan (see klimat)

Grösser Wind -- Ger. "great wind"; a föhn-type northeasterly wind on the northwestern slopes of the Altay Mountains [25].

Gu (see tajfun ["typhoon"])

Guba -- a squall with rain on the sea around New Guinea [2, 8].

Guebli (see ghibli)

Guergal (see gregale)

Guibli (see ghibli)

Gully-squall -- a strong gust of wind from out of the mountain valleys of the western Andes on the Pacific Coast [2, 8].

Gutaj (see tajfun ["typhoon"])

Guter Monsun -- Ger. "good monsoon"; a monsoon wind (the summer monsoon) bringing a sufficient amount of precipitation [25].

Guti weather -- squalls and sudden rainstorms in the period from December to March in North Africa [8].

Guttra -- strong May squalls in Iran [2, 8].

Guxen -- a cold wind blowing out of the Alps in Switzerland [2, 8].

Guzzle -- strong gusts of dry "firey" wind on the Scottish Islands [2, 8].

H

Hababai -- a dry and hot easterly and northeasterly wind blowing in October and November on the western coast of the Red Sea around Port Sudan [25].

Habbub (see habub)

Haboob (see habub)

Haboub (see habub)

Habub -- this term comes from the English "hubbub" ("uproar," "chaos"), or from Arabic "hubub" ("grain"), and others give Arab. "habb" ("wind"); this term includes strong gusts and sand storms observed in Egypt and the Sudan, whose formation is conditioned by the presence of shifting cold fronts along which strong convection currents are formed carrying great amounts of dust and sand upward and forming a wall of dust at an altitude of 1,500-2,000 m in conjunction with storm clouds; the wall of dust, which is actually a series of tornadoes or whirlwinds containing dust and interconnected between themselves, may be 20-30 km long; during the spring, it may last 2-4 hours, and during the autumn they are of significantly shorter duration, lasting scarcely 5-15 min; the wind velocity increases very rapidly to 40-60 m/sec, gusting to 100 m/sec; during the rainy season, they have a northerly and easterly heading (with yellow and red dust), and in the dry season they have northerly and northwesterly headings with black dust; if a rainstorm follows the dust storm, the air is washed clean very rapidly; a habub occurs mainly during the period from May to September, and in April and May, when the ground is at its driest, it appears in its most violent form; the extent over which a habub may develop is enormous, from the Red Sea up to about 800 km to the west of the Nile; in the environs of Aswân, it is only a rare phenomenon: there have been 10 cases in 18 years, and in Khartoum there have been 106 cases in 8 years; some apply this term also to a dust storm in India and Arabia; variants of the name are: habbub, haboob, haboub, hubbob, hubbub, and hubub [1, 2, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 34, 36].

Hale de mars (see bise)

Half a gale (see perry)

Halniak (see wiatr halny)

Halny (see wiatr halny)

Hamera (see huragan, wir powietrzny ["tornado, whirlwind"])

Hand -- term for a squall in Scotland [2].

Haracana (see hurricane)

Haraucana (see hurricane)

Haraucane (see hurricane)

Harmatan -- this term comes from the dialect of the Ashanti tribe and means: a dry, dust-laden wind over the Atlantic coast of Africa; it is a term for the north-westerly tradewind blowing in Africa the whole year round; it is particularly steady from the end of November to mid-March, in January it may reach as far as 5° North latitude, in July to 18° North latitude, and in the period from November to March it may reach to the west coast of Africa and the Cape Verdi Islands or the Gulf of Guinea; it is an expressly dry, dust-laden and strong wind, intensified in its föhn effect after it crosses the mountains to the coast; it is contrary to the summer southeast monsoon, which is hot, humid, and rainy; the harmatan, with respect to its great velocity and dryness, is a wind that is colder than the monsoon, and it is often called doctor by local populations; when its velocity is greater, it brings a crushing heat to the coast; it carries a great amount of dust, from the smallest grained yellow dust to the largest grained red-brown desert dust; the dust contributes to the formation of fogs that are particularly threatening for ships; during the summer, the harmatan is colder than the southwest monsoon and it flows underneath it; the harmatan may occur under these circumstances at altitudes of 3-6 km; some call this collision of the winds the "west African tornadoes"; the harmatan is known also according to the term dry tradewinds; other variants of the term include: harmattan, harmetan, hermitan [1, 2, 4, 7, 8, 15, 17, 18, 20, 25, 26, 27, 34, 36].

Harmattan (see harmatan)

Harmetan (see harmatan)

Harmseal (see garmsil)

Harmsil (see garmsil)

Haroucana (see hurricane)

Harrycain (see hurricane)

Haugull -- a cold and humid sea wind occurring during the summer season in Scotland and Norway; also: havgul, havgula [2].

Hauracana (see hurricane)

Hauracane (see hurricane)

Havgul (see haugull)

Havgula (see haugull)

Havrög -- a "boiling of the sea" due to the squall winds in the Norwegian fjords [9, 17, 25, 26].

Hazri (see nord)

Heidelberger Talwind -- a wind blowing during the night and up into the Neckar River Valley near Heidelberg during weather induced by a high [25].

Hellespontias -- Old Greek term for a northeasterly wind (a part of the summer etezja) blowing over the Black Sea, over the region of the Dardanelles Strait, and over the Aegean Sea; also: ventus hellesponticus, ventus hellisponticus [9, 17, 25].

Helm wind -- Eng. "cloud that envelops the peaks"; a very strong northeasterly wind of the bora type, descending out of the Pennines, in the environs of Cumberland and Westmoreland (the Eden Valley); it is often observed during the winter and spring; the wave-like clouds connected with this wind also carry the term "helm" [2, 7, 8, 15, 25, 27, 36].

Herican (see hurricane)

Hericane (see hurricane)

Hericano (see hurricane)

Hermitan (see harmatan)

Herocane (see hurricane)

Herricano (see hurricane)

Herycano (see hurricane)

Hesperos -- Old Greek term for westerly winds [9, 25].

Heurricane (see hurricane)

Heuricano (see hurricane)

Heulende Verziger (see ryczące czterdziestki ["howling forty"])

Hig -- a strong and short-lived gust of wind or rainstorm in England; also:
ig [2].

Himmelsbesen -- a dry föhn-type northwesterly wind in Palma on Majorca [25].

Hiracano (see hurricane)

Hirecano (see hurricane)

Hirodo (see hiroto)

Hiroto -- a föhn-type northeasterly wind observed in September and October in the northeasterly part of the Okajama Prefecture in Japan, arising with the departure of a typhoon to the northeast of Sikoku Island; also: hirodo [4, 19].

Höllentäler -- a nighttime, cold mountain wind blowing through the Höllen Valley in Fryburg (Bryzgowia [Translator's Note: Many place names in Central and Eastern Europe have both German and Slavic forms]), frequent during the spring and summer, also called: Höllenwind [25].

Höllenwind (see Höllentäler)

Hot winds -- a term for hot, föhn winds on the Great Prairies of North America [25].

Howling fifties (see wyjące pięćdziesiątki)

Huan-fyn -- Chin. "yellow wind"; dust storms in China of hurricane force covering a large area, coming out of the northwest out of Central Asia; often occurring at the end of winter and during the spring; otherwise: żółte viatry (Gelbe Winde in German, yellow winds in English) [16].

Hubbob (see habub)

Hubbub (see habub)

Hubub (see habub)

Huracan (see hurricane)

Huracano (see hurricane)

Huragan -- (1) this term is applied to deep tropical cyclones in the North Atlantic, occurring over the expanse of the Gulf of Mexico; the Caribbean term is hurricane; (2) a term for very strong winds in Poland, corresponding to a series of vernacular terms: navalnica, nawałnica, wicher, wichura; in Lubelszczyzna, it is zawichylica; in Little Poland (Małopolska), chmurzyca, furagan (in the southeastern part of Little Poland), hamera, wichor, wichur (in the eastern part); in Mazovia (Mazowsze), chychawica; in Mazuria, the chychoł, orkan; in Podhale (Lower Galicia), it is powicher; in Podlasie, it is szturma; in Greater Poland, wirbelszturm; burza in Podlasie, Little Poland, and the eastern part of Silesia; powietrze in Sieradzki and in Silesia; szturm in Mazuria, Pomorania and in Warmie; uragan in the southeastern

part of Little Poland, Mazuria, Pomorania, and Warmie; also generally: tr ba
powietrzna [13, 19, 36].

Hurican (see hurricane)

Hurleblast (see hurricane)

Hurlecan (see hurricane)

Hurlecano (see hurricane)

Hurlicano (see hurricane)

Hurrican (see hurricane)

Hurricane -- according to the WMO definition: "(1) a term of Caribbean origin used first of all for the name of tropical cyclones in the Caribbean Sea; (2) the name given to tropical cyclones in which the wind reaches great force; (3) the conventional term agreed upon for winds with velocities greater than 29 m/sec (12 B)"; a Caribbean term for tropical cyclones in the North Atlantic, Caribbean Sea, and Gulf of Mexico, over the western coast of Mexico, and the eastern part of the North Pacific; they occur most frequently in the period from August to October; other variants of the name are: foracan, foracane, furacan, furacana, furacane, furicane, furicano, haracana, haraucana, haraucane, haroucana, harrycain, hauracana, hauracane, haurachana, herican, hericane, hericano, herocane, herricano, herycano, heuricane, heuricano, hiracano, hirecano, huracán, huracano, hurican, hurleblast, hurlecan, hurlecano, hurlicano, hurrican, hurricano, hurrikan, hyrracano, hyrricano, jimmycane, orauscan, ox's eye, uracan, uracano, urycan, west Indian hurrican [2, 8, 10, 18, 25, 26].

Hurricane-induced tornadoes -- term used by A. D. Pearson and A. F. Sadowski for a tornado induced by a hurricane [18].

Hurricane-tornado -- term used by J. S. Smith for designating a tornado caused by a hurricane [18].

Hurricano (see hurricane)

Hurrikan (see hurricane)

Hyj-fyn -- Chin. "black wind"; a dust storm in China, frequent at the end of winter and during spring [16].

Hyrracano (see hurricane)

Hyrricano (see hurricane)

I

Ibe -- a strong, even hurricane eastern and southeastern wind in Brama Džhungarska; an ibe on the shores of Lake Ebi is a weaker wind whose velocity increases when it blows into Brama Džhungarska, and as it blows out of Brama Džhungarska into the Alakul Valley, it becomes relatively weaker; it reaches as far as Lake Balchash; in addition, it has the tunnel character of the föhn characteristic (the wind descends to places at lower elevations), it brings heat; in the winter it causes snow in the summer it brings dust and sand and even fine gravel; the overburden of the masses of air transported is greater than 1,000-1,500 m; its average wind velocity is about 20 m/sec, even gusting up to 80 m/sec; the term for this wind comes from Lake "Ebi-Nur," and it is also known under the form Ebe; the formation of this wind is connected with the shift of a low out of Central Asia to the northeast [8, 16, 20].

Ig (see hig)

Imbad (see imbat)

Imbat -- Turk. "sea wind"; (1) a strong sea breeze in the Gulf of Smyrna (Izmir) and the environs; it is felt up to distances of 40 km from the coast when the etezja wind is considerably weakened; in Izmir during the period from April to October, 20-25 days per month with the breeze are registered; this term is applied in other locations in Turkey; (2) a sea breeze that meliorates heat over the north coast of Africa; also: imbad, imbatto (Ital.), emvatis (Gr.) [4, 7, 9, 25, 26, 27].

Imbatto -- Ital. "collision, obstacle, obstruction"; a summer sea breeze over the Adriatic coast, especially in Dalmation; also: imbat (Turkish), and emvatis (Greek).

Imbattu -- a sea breeze in eastern Sardinia and Sicily [35].

Inferno -- Ital. "wind from the underground"; a daily southeasterly wind (valley wind) over Lago Maggiore in Italy; also: inverna [8, 9, 25].

Inverna (see inferno)

Irifi -- a dry and warm northeasterly wind in the western portion of Morocco,

observed frequently during spring and autumn; over the coast it often descends with an enhanced föhn effect due to its dryness and heat [25].

Iron winds -- northeasterly winds blowing sometimes for several days in February and March in Central America [2, 8].

Iseran -- bisa descending from the Iseran Pass in Bonneval in Sabaudia; it is a wind with very great force [28].

J

Jalogue -- local term for sirocco in the Balearics [2, 8, 25].

Jamadzi -- a wind in the Ehime Prefecture in Japan connected with a typhoon [18].

Jaman -- "evil storm"; a very strong sand storm in the west of China; it is rarely observed, lasting on the average a half-day and sometimes for a whole day [30].

Jasiek (see wir powietrzny ["tornado, whirlwind"])

Jasio (see wir powietrzny)

Jauch (see Jauk)

Jauk -- term for both the northern and southern föhn descending from Karawanken into the Klagenfurt Basin in Austria; also: jauch [2, 8, 9, 15, 25, 26, 36].

Jimmycane (see hurricane)

Jivovec -- Czech term for a northerly wind contributing to the formation of hoarfrost [9, 25, 26].

Jochwind -- a local valley wind intruding into the Tauern Pass in the Tyrols [2, 8, 9, 25, 26].

Joran -- a strong, often stormy westerly or northwesterly wind in the Central Jura; it blows frequently during the spring when a cold front is moving over the Jura; also: Juran, montaine [2, 8, 9, 17, 25, 26, 27, 28].

Jug -- a southwesterly wind blowing in southern Dalmatia, particularly during the spring and autumn (with periods of intense cyclonic activity); this wind brings warm and humid air, and after it crosses the Dynar Mountains, it loses its moisture; in the Sava Valley, from Karawanken to Sarajewa, a dry and warm wind called the

Dynar föhn blows [4].

Junk -- (1) refreshing sea breeze-like winds from the northerly directions over the coast of Siam; (2) this term also covers the southern or southeasterly monsoon favorable for sailing junks in Siam, China, and Japan; also: kite [2, 8, 9, 26, 27].

Junta -- violent stormy valley wind blowing in the rocky canyons and valleys of the La Paz River and through the passes of the Andes; also: junte [2, 8, 9, 17, 25, 26].

Junte (see junta)

Juran (see joran)

Jurek (see wir powietrzny ["tornado, whirlwind"])

Jurk (see wir powietrzny)

Jużak -- a strong southerly wind blowing out of the mountains on the Chukchi coast, especially in the direction of the Chaunskaya Guba Gulf (the East Siberian Sea); its average velocity is about 15-18 m/sec, gusting to 40 m/sec, lasting 3-4 days, with a föhn-like character, but its temperature is so low that the weather connected with this wind is brutal; at the same time, it brings a great amount of snow [4, 31, 34].

K

Kabakmeltem (see meltém)

Kâchchan -- a hot and dry westerly or southwesterly wind of the föhn type on the leeward side of the Ceylon Mountains during the summer monsoon period (May-August); it is especially clearly developed in Batticaloa, on the eastern coast where it is strong and prevents sea breezes; it carries a temperature up to 40°C [2, 4, 25].

Kaikias -- Greek term for a northeasterly and a north-northeasterly wind [15, 25, 26, 27].

Kal baisakhi (see kal-baishakhi)

Kal-baishakhi -- a short-lived sand squall connected with the southwestern monsoon (April to June) in Bengalia; it appears along a quasi-stationary front: the upper current of dry and cold air from the north or the northwest over warm and humid air; this front, after it has moved to the northwest, causes the occurrence of similar phenomena as well in the United Provinces of India and in the Punjab, where it is known as: (distorted text), as well as the kal baisakhi, nor'wester [2, 8, 9, 25, 26].

Kamsin (see chamsyn)

Kanionowy wiatr -- "canyon wind"; (1) a mountain wind in canyons caused by the nighttime cooling of a slope; (2) an air current in the general atmospheric circulation blowing along a canyon with an increased velocity due to a tunnel effect; also: wąwozowy wiatr.

Kaous (see kaus)

Kapalilua -- the main type of sea breeze in Hawaii [7].

Kapdoctor (see Cape doctor)

Kapdokter (see Cape doctor)

Karaburan -- Turk. "black storm"; (1) a very strong east-northeasterly wind (a summer buran) in Turkestan and Central Asia, blowing sometimes every day from the beginning of the early spring to the end of summer; it blows out of the Gobi Desert bringing a great amount of dust and sand for long distances and forming characteristic summertime atmospheric turbidity, sometimes completely blocking out the sun; it usually rises during the day, dies down at night, and sweeps the sky clean; in this respect, the karaburan is similar to the harmatanu; also known as: black buran, black storm; (2) some presume that karaburan is another name for the Afganiec [1, 2, 5, 7, 8, 9, 17, 18, 25, 26, 27].

Karael (see bonenti)

Karajol -- Turk. "wind from the land"; a westerly wind on the Bulgarian coast, observed mainly during the summer, lasting 1-3 days, bringing precipitation; also: qarajel, quara, quarajel [2, 8, 9, 25, 26].

Karanlug -- a southwesterly föhn wind above Lake Sewan in Armenia [4].

Karasl -- a southwesterly wind over the Danube in Rumania [20].

Karasmeltem (see meltém)

Karema -- a strong easterly wind over Lake Tanganika in Africa [2, 8].

Karif -- (1) a term for a southerly or southeasterly summer monsoon bringing precipitation to the Sudan; this term is used to denote the rainy season itself; (2) a night land breeze-like wind blowing from the southwest over the coast of Somalia and into the Gulf of Aden; also: kharif [2, 7, 8, 9, 15, 17, 25, 26, 36].

Karpus-meltem (see meltém)

Karstbora -- a local term for the bora on the Yugoslav coast [2, 8].

Kastek -- a strong easterly wind blowing during the winter from out of the Kurday Pass between Alma-Ata and Frunze; it is a katabatic wind connected with a cold front [4].

Katabatyczny wiatr ["katabatic wind"] -- the WMO definition: "A gravitational wind descending down a slope as a result of the great density of the air connected with cooling on the surface of a slope." The cited definition applies imprecisely to many gravitation winds, mountain winds, slope winds, and possibly glacier winds, but does not include higher scale winds: for instance, winds of the bora type, other kinds of slope or declivity winds, and föhn winds which are also katabatic winds [9, 10, 18, 25].

Kaus -- Arabic term for the month corresponding to the zodiac period of Sagittarius (20 October to 20 November); (1) a moderate, at times stormy, southeasterly wind blowing over the Persian Gulf and in Mesopotamia, most often occurring in the period from December to April, accompanied by cloudy weather, with precipitation and storms, rarely lasting more than 3 days, connected with lows moving over the Mediterranean Sea, often occurring following a southwesterly wind called the suahili i suhaili; the szamal often follows the kaus; (2) a summer southeasterly monsoon which brings precipitation into the Persian Gulf; (3) a wind of the sirocco type in the Persian Gulf; other terms for this wind are: cowshee, kaous, gaus, guas, scharki, sharqi, sherki, shuquee, shurgee, shurkiya, szarki [2, 3, 7, 8, 9, 16, 17, 23, 25, 26, 27].

Kaver (see caver)

Kazandžinskij wietier ["Kazandžinskij wind"] -- a local wind blowing out of the pass between Kopet-dag and Great Balchan over the Uzboja Valley; it arises as a result of a strong barometric gradient between a low located over the western extremity of the Kopet-dag and a high over Kara-Kum [20].

Kerczak -- a wind driving from the southwest into the Don Valley, causing a surge or swelling in the river water; this term comes from the locale name Kerch on the Crimea [20].

Khamasseen (see chamsyn)

Khamsin -- a term for a strong sirocco-type wind over Malta; also generally known as: chamsyn [35].

Kharif (see karif)

Khemsin (see chamsyn)

Kibla lodos (see lodos)

Kibli (see ghibli)

Kokawadasi -- a strong local wind connected with a typhoon in Kiokawa in Japan [19].

Kirás-meltem (see meltém)

Kite (see junk)

Kizy -buran -- term for weak, yellow storms in Western China; often blowing during the winter and in the summer, occurring almost every week, lasting 2-3 days; also: saryk [30].

Klimat -- a cold winter wind blowing from the mountains in the region of the north coast of the Black Sea; if the wind is gusty, a cloud bank appears over the mountains and rain falls on the windward slopes; storms are frequent, sometimes this is connected with the passage of a front, while at the same time the wind has the character of a squall over the southern slopes in the area of Nikotskiy Sad; the klimat that blows from the northeast is called grewo or grewo-tramontan, and it is an indication of a storm at sea [20].

Klood wind -- a cold southwesterly wind in Simons Bay in South Africa [8].

Knik wind -- a strong southeasterly wind in the Matanusca River Valley (often called the Matanusca wind), in the environs of the town of Palmer in Alaska; this wind occurs over the course of the whole year, more often in winter [1, 2, 7, 8, 25, 26, 27].

Koembang -- a dry southerly or southeasterly wind on the north coast of Java in the environs of Tjirebon and Tegal; when the southeasterly monsoon passes over Pembarisan Mountain, it brings precipitation to the windward slopes, and after it passes to the leeward slopes, it has the character of a föhn; also: kumbang [2, 9, 15, 18, 25, 36].

Kogarashi -- a winter wind bringing snow in Japan; it blows from the north or northwest [25].

Kokandec -- a westerly wind, blowing during the period from March to October, in the western part of the Sy-Darifi Valley from Kokand to Leninabad; this wind blows over the Golodnaya Steppe ("the Hungry Steppe"), and it is particularly pronounced after the passage of a cold front [5].

Kołomęt (see wir powietrzny ["tornado, whirlwind"])

Kołowrót (see wir powietrzny)

Kominek (see wir powietrzny)

Kompensacyjny wiatr ["compensating wind"] -- this term is applied to winds that are locally formed between large mountain systems and extensive deserts; these are cold winds blowing during the warm season of the year in the lower troposphere from the direction of strongly heated deserts in the directions of mountains, connected with a gradient in the surface isobars in the open atmosphere; according to O. A. Drozdow, this is a large-scale current with the character of a monsoon; these winds are also observed in Central Asia [5].

Kona -- Polynesian word meaning "leeward," as well as the locale of Kona in Hawaii; a stormy southwesterly or south-southwesterly wind with storms and precipitation in Hawaii; it blows on the average of five times per year on the southwestern slopes, contrary to the prevailing northeasterly tradewinds; the formation of this wind is connected with the passage of the Aleutian high from the south or southeast and with the passage of a second low, called the Kona, from the northwest to the southeast in the region to the north of the islands; also: Kona-storm, Kona-sturm, Konas [1, 2, 9, 15, 17, 18, 25, 27].

Kona-storm (see Kona)

Kona-sturm (see Kona)

Konas (see Kona)

Kosava (see koszawa)

Košava (see koszawa)

Koschava (see koszawa)

Kossava (see koszawa)

Koszawa -- (1) a warm squall-type easterly or northeasterly wind descending from the Carpathian Mountains into the Danube Valley; it blows as far as Belgrade to the west, to Rumania and Węgier to the north, and to the south to Niš; in the winter it brings a temperature drop as low as -29°C , and in the summer it brings a great amount of dust; in the winter it is connected with a low over the Adriatic and a high over the central and southern European part of the USSR; according to some authors, in the summer it is caused by the tunnel effect from the Żelazna Brama, and according to others, for example Küttner, it is a katabatic wind on the order of something somewhat between a bora and a föhn; the koszawa wind has a pronounced daily or 24-hour course, with a maximum being attained in the hours between 0500-1000; (2) in the region of the ridge of the Rtań Mountains in Yugoslavia, this term includes a dry and warm wind that raises the temperature in the winter and causes a slight decrease in overcast weather and the relative humidity; in the autumn it contributes to the rapid falling of leaves; other terms are: kosava, košava, koschava, kossava [2, 4, 8, 9, 17, 25, 26].

Kounradskij nord-ost -- a strong northeasterly bora-type wind blowing from the mountain ridges of the Chyngiz-Tau to Lake Balkhash in the environs of the town of Kounrad; it arises when a high is located to the north or northeast of the Chyngiz-Tau, appearing mainly during the winter and blowing with hurricane force, lasting several days and bringing great amounts of snow (zamieć śnieżna ["blizzard"], buran ["storm"]); during the spring and autumn, this wind is weaker, weakest in the summer, accompanied by dust storms; it is also called the balchaszska bora ("balkhashska bora") [16].

Kozelk (see wir powietrzny ["tornado, whirlwind"])

Koziołek (see wir powietrzny)

Kraćk (see wir powietrzny ["tornado, whirlwind"])

Kręciaty witer (see wir powietrzny)

Kręciek (see wir powietrzny)

Kręcik (see wir powietrzny)

Kręciołek (see wir powietrzny)

Kręciuch (see wir powietrzny)

Krętarz (see wir powietrzny)

Krętawica (see wir powietrzny)

Kręty wiatr (see wir powietrzny)

Krivitz (see crivet)

Krivu (see crivet)

Krizel (see wir powietrzny)

Krizelwind (see wir powietrzny)

Kroatenwind (see Krowotenwind)

Krowotenwind -- Ger. "wind from Croatia," a cold, damp southeasterly wind often accompanied by fog blowing for several days in Vienna; its formation is connected with a low over the northern Adriatic; also known as: Kroatenwind [9, 17, 25].

Kü (see kü-fun)

Kuas (see kaus)

Kü-fun -- a strong wind arising with slight tropical cyclones above the China Sea in the vicinity of Taiwan; the kü is not a wind that occurs with regularity, in contrast to the tai; the kü blows generally during the period from February to May, and the tai from June to September; also known as: kü [9, 25].

Kultuk -- a stormy katabatic southwesterly wind blowing from Kultuk Bay over Lake Baikal; during the autumn season it reaches the center of the lake and causes several days of wave action [4, 22, 32].

Kulusutajskij ibe -- a strong tunnel effect, storm wind connected with a cold front in the Emel Valley; in Bakhta it is recorded for 30-44 days per year, reaching maximum velocities of 34 m/sec; it is also called the kulusuktajskij wietier [Translator's Note: The word "wietier" is Russian for "wind"] [4, 5].

Kulusuktajskij wietier (see ku usutajskij ibe)

Kuma kuma (see tongara putih)

Kumbang (see koembang)

Kurzawa (see wir powietrzny ["tornado, whirlwind"])

Kusy Bartek (see wir powietrzny)

Kusy Jasio (see wir powietrzny)

Kvarnero (see Quarnero)

Kynuria -- a cold mountain wind blowing during the evening from the Parnon Mountains in the Peloponnissos in the direction of the shore [25].

L

Labbé -- a moderate, sometimes strong southeasterly wind bringing humid air cloudy weather and rain into eastern Provence and the Valley of the Var; it is a rarely occurring wind, appearing in March; in the Swiss-French Alps it has the name labecn, frequent in the autumn and winter; also: labé [2, 8, 25, 28].

Labé -- a southwesterly breeze in the area of Toulon; also called: lagarde, largade; also generally: labbé [8, 28].

Labech (see labbé)

Lagarde (see labé)

Laheimar -- cold squall winds blowing mainly in October and November out of various directions over the Persian Gulf and Mesopotamia [2, 8, 9, 17, 25, 26, 27].

Lampaditsa -- Gr. "lampadios," "torch-bearing"; a Greek term for the sirocco on the Island of Zakynthos in the Aegean Sea; this wind is hot and dry, primarily out of a southerly direction with sultry air, having a white, yellow or red color from Sahara dust, with the sun barely shining through; this wind blows during the course of the whole year, most frequently during the spring [9, 20, 25, 26, 27].

Lan san -- a particularly strong southeasterly tradewind in the New Hebrides; also: lansan [8, 9, 25, 26].

Landspout -- (1) a rarely used term for tornado; (2) also rarely: wir pyłowy ("dust whirlwind, dust tornado") [8].

Langkisau -- a strong föhn wind blowing for the course of a whole day in Sumatra and the eastern part of India [2, 8].

Lansan (see lan san)

Largade -- (1) a sea breeze over the Provence coast, in the eastern part blowing from the southeast, and in the western part from the southwest; it is called labé in the area of Toulon; (2) in the region to the west of Marseilles, this term

includes, however improperly, a west wind; also: lagarde, large [25, 28].

Large (see largade)

Lautaret -- a northerly wind descending from Lautaret in the area of Briançon in France; this is a strong and cold wind, with the sky cloudless [28].

Laveche (see leveche)

Lebeccio (see libeccio)

Lej (see wir powietrzny ["tornado, whirlwind"])

Lenzbote -- a term for a springtime föhn in the Alps causing rapid melting of the snow [25].

Leste -- Fr. "le este," Sp. and Port. "leste," meaning "the east"; a dry and hot easterly wind of the sirocco type, blowing during the period from June to September in Madeira and the Canary Islands, lasting approximately three days, sometimes even a week; temperatures rising to 50°C, humidity lowering to 20-25%; the velocity of the leste may reach 54 m/sec, arising when a low passes over the region to the southeast of the Azores high [1, 2, 7, 8, 15, 17, 20, 25, 26, 27, 36].

Leśny wiatr ["forest wind"] -- a wind of local circulation arising between a forest and open ground over the course of a fair and peaceful night; the wind blows away from the forest with the cold air being directed out of the treetops toward the region of the open ground, blocking the wind rising above the fields [25].

Letnik (see południk)

Leto (see południk)

Leukonotoi -- Gr. "white wind"; this term was used for a southerly wind in Ancient Greece, accompanied by fair days; the contrary wind is called a notos [25].

Leung -- a cold northerly wind over the China coast [7].

Levant -- an easterly wind descending from the Alp valleys into Château-Bernard in the Dept. Isère, in the region of Buis-les-Baronnies in the Dept. Drôme and Tricastin in France; also generally: levante [8, 20, 25, 28].

Levant blanc (see levante)

Levantades (see levante)

Levante -- Lat. "levare," "soar," "sunrise," "eastern winds"; this term describes a wind in the western part of the Mediterranean Sea basin, mainly over the Spanish coast; it has the character of a mild wind, very humid with rainy and cloudy weather accompanied by a low over the western part of the Mediterranean Sea, rarely occurring in summer; in the winter, it is blocked by the Iberian high; the levante more often occurs in the period from February to May and from October to December; the French name for this wind is levant; when it is accompanied over the French coast by good weather, it is called the levant blanc; over the coast of Catalonia, it is called llevant, and in the Strait of Gibraltar the levanter; particularly strong and stormy winds carry the names: levantades, llevante, and llevantades [1, 2, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 28, 29, 35, 36].

Levanter (see levante)

Levantera -- an easterly wind bringing rainy and cloudy weather, connected with a bora over the northern Adriatic [1, 2, 8, 9, 20, 25, 26, 27].

Levanti -- a term for an easterly wind over the Bulgarian coast of the Black Sea [20].

Levantis -- a term for easterly winds in Greece, known also in ancient times [25].

Levanto -- a hot and dry southeasterly wind carrying a great amount of black Sahara dust, occurring in the Canary Islands, particularly in the Oratava Valley on Tenerife Island, where it has the character of a föhn; similar to the leste [1, 2, 7, 8, 20, 25, 26, 27].

Leveche -- Spanish name for the sirocco; dry and hot sirocco blowing from southwesterly to southeasterly directions over the south and southeastern coast of Spain, from Malaga to Valencia; in Alicante it carries the name aire de Cartagena ("Cartagena air"); the leveche may be anticipated from approaching clouds with a brown color, the sea is peaceful, it is calm, and the leveche makes its appearance with irregular gusting, carrying great amounts of Sahara dust and sand; also: laveche [1, 2, 4, 7, 8, 9, 15, 17, 20, 25, 26, 27, 29, 35, 36].

Lhamsin (see chamsyn)

Libeccio -- Italian term for a southwesterly wind over the Côte d'Azur and Corsica, Sardinia, or the Italian coast of the Ligurian and Tyrrhenian Seas; it blows throughout the whole year, in winter having the character of a storm, and in the summer and during the spring it brings precipitation and storms to the windward slopes of the mountains of Sardinia and Corsica, while it descends the leeward slopes as dry and warm air with the character of a föhn; also: lebeccio [2, 8, 9, 16, 25, 27, 28, 29, 35].

Liberator -- a term given to westerly winds in the Strait of Gibraltar [8].

Ligo fango (see mistral)

Lipo fango (see mistral)

Lips -- Gr. "southwesterly wind"; (1) Aristotle uses this term for a wind blowing out of the direction the sun takes as it sets on the shortest day of the year; (2) Old Greek term for sea breeze in Athens; (3) also an Old Greek term for mild southwesterly winds bringing precipitation; it denotes a wind blowing from Libya; it is generally called livas or garbis [2, 9, 15, 25, 26, 27].

Liptowskie wiatry ["Liptowski winds"] -- westerly or southwesterly winds (from out of the mountains) blowing during the hours around noontime during good weather in the Morskie Oko depression and in the Sucha Voda Valley (Hala Gasienicowa); these are not mountain winds, which is shown by the hour of their origin; they block the valley winds which normally blow at this hour of the day (newly formed at noon); the Liptowskie wiatry arise, similarly to the Upper Engadyne wind, the Maloja, as

a result of differences in the level of heating between the southern valleys (the Liptowska Valley) (which is great) and the northern valleys (which is weak); the difference in heating levels is attested by the long period that the snow lies on the ground in Podhale, a period longer than in Spisze or in Liptowa; the Liptowskie wiatry attain significant velocities: 6-8 m/sec, and even up to 10-15 m/sec; they differ from the halny by their greater humidity; they may be felt even as far away as Pająkówce (Gubaówka), more often observed during the spring, late summer, and autumn [11].

Lisieux -- a northwesterly wind blowing in Saint-Agrève in France; also: auvergnasse [28].

Lissero (see vent des dames)

Listoboj (see pazdiernik)

Listopad -- a southwesterly wind in the region of the White Sea, bringing with it precipitation and a freshening of the air; it appears from the end of August into the winter [32].

Livas -- (1) the same as the lips wind; (2) a western föhn-type wind blowing in May from Pindos onto the Thessalonika Plain in Greece; also: lives [25].

Lives (see livas)

Ljuka -- this term comes from the Slovanic "jug," "wind out of the south"; the local name for a föhn in Carynthia (northwestern Yugoslavia) [2, 9, 23, 25, 26].

Llebetg -- Arabic or Catalan term for a heated, southwesterly föhn wind in the environs of Roussillon, on the northern slopes of the eastern Pyrenees; this wind blows for an average of four hours; also: llebetjado [2, 8, 25, 28].

Llebetjado (see llebetg)

Llevant (see levante)

Llevante (see levante)

Llevantades (see levante)

Lodos -- this term means "bleaching wind"; this is a term for warm southeasterly to southwesterly winds blowing during the summer and autumn over the Bulgarian Black Sea coast; báti lodos means a southeasterly wind; kibla lodos is a south-southwesterly wind; and lodos pojras is a southeasterly wind [2, 9, 17, 20, 25, 26].

Lodos pojras (see lodos)

Loehis (see aloegoe)

Loisieux -- a warm southwesterly wind blowing during the summer season, accompanied by storms, and sometimes by hail, in Yenne in Sabaudia [28].

Lombard -- a cold northeasterly wind in the Sasse Valley and in the central Ubaye, Dept. Basses-Alpes in France; generally also: Lombarde [28].

Lombarde -- a term for cold northeasterly and warm southeasterly winds descending out of passes in the Alps into the following valleys: the Glaré, Guisiane, Cerveyrette, and Guil; in Chanlelouve in Dept. Isère, it has an easterly direction, and in Besse it has a northeasterly direction; as a result of the föhn effect, it is dry and gusting; when a high is located over France in Central Europe, the Lombarde is a dry and cold wind, but if it is located over Western Europe, between a low over northeastern Europe and a Mediterranean Sea low, the Lombarde brings warm and cloudy weather; with a high over southeastern Europe and a deep low over western France, a bank of föhn clouds is formed over the Italian slopes of the Alps, and the wind and velocity increases; also: Lombard ["wind from Italy"] [2, 4, 8, 25, 28].

Long shore wind -- (1) a humid southerly wind in Madras; (2) a nighttime, northeasterly wind over Ceylon [2, 8].

Longet -- a wind blowing from out of the passes in high valleys in the region of Ubaye, Dept. Basses-Alpes in France [28].

Loo -- (1) a hot and dry westerly wind in India; (2) winds of the föhn type blowing before the beginning of the summer monsoon out of the Himalaya valleys over the foothills of the United Provinces and in Bihara; (3) a term for dust squalls; generally: kalbaishakhi; other variants of the term are: loo marma, look, lu [2, 4, 8, 25].

Loo marma (see loo)

Look (see loo)

Lou cantalié (see aspre)

Lou mango fango (see mistral)

Lou souledre (see matinal)

Lu (see loo)

Luganot -- a strong southerly or southeasterly wind over Lake Garde in southern Italy [2].

M

Madeleine -- a humid southwesterly wind in Sabaudia occasioning rain and snow precipitation [28].

Madras-monsoon -- the southeasterly monsoon with rainy weather, over the Coromandel Coast in India [25, 26].

Maestral -- a southeasterly wind blowing from off the land, sometimes with great velocity; it appears along the whole Spanish coast; this is the Spanish mistral [17, 27, 29].

Maestrale -- Ital. "maestro, master"; a southeasterly wind, blowing with great stability, bringing good weather during the summer (especially in Sicily); this is the Italian mistral; also: maestrali [9, 17, 26, 27, 29, 36].

Maestrali (see maestrale, maestro)

Maestro -- Italian term for the mistral; a northwesterly wind with good weather, blowing especially in the summer over the Adriatic and the Aegean Sea; it is of the same significance as the etezja; it is connected with a low over the Balkans; this term is used for the mistral over the Corsican and Sardinian coasts; also: maestrali, maistral, maistros [2, 8, 9, 17, 25, 26, 27].

Mageriaz -- a westerly wind in Aillon-le-Jeune in Sabaudia; it brings rain and snow precipitation [28].

Magistral -- a northwesterly wind descending from Aveyron, Garrigues, and Espinasse (in the Sevnnes) into Hérault in Lower Languedoc; it is also often called: tramontane; generally: mistral [28].

Magne -- a southerly wind in Noyer-en-Bauges in Sabaudia [28].

Magnofango (see mistral)

Maistra -- a westerly wind with cold weather in the region of the Black Sea [20].

Maistral (see maestro, mistral)

Maistrau (see mistral)

Maistre (see mistral)

Maistros (see maestro, mistral)

Maistrus -- a northwesterly wind in Bulgaria [20].

Maladette levante (see maladetto levante)

Maladetto levante -- Ital. "cursed eastern wind"; (1) an easterly wind in Sardinia; (2) a local term for the sirocco in Sardinia; also: maladette levante [25, 27, 35].

Mallungen -- German term for calms in the equatorial, low-pressure zone, English doldrums; sometimes it also means the zone of calms in the region of tropical highs, the so-called "horse latitudes" [9, 25, 26].

Maloja Wind -- this term comes from the Maloja Pass in the Upper Engadine in the Alps; this is a wind blowing over the whole day down into the valley, contrary to the normal valley wind; it is occasioned by the unique land conditions, with cold air overlaying the Bergell depression, from where it flows down through the Maloja Pass to the other side and drives out the normal characteristic wind for the Upper Engadine Valley, the Brüscha; similar winds blow in the Prätigau and the Wallis Valleys above Lake Geneva; the Liptowski wind in the Tâtras is similar to this [2, 8, 9, 11, 17, 25, 27].

Mamaliti (see mamatele)

Mamatele -- a weak southwesterly wind in Sicily, a specific form of the mistral; also: mamaliti, mamatili [2, 8].

Mamatili (see mamatele)

Mandjil -- a cold northerly wind blowing out of Siberia and Central Asia through the Mandjil Narrows in the Elbrus Mountains in the direction of Teheran [6].

Mangebue -- a term for the mistral in Provence and along the whole French Mediterranean coast; also: mangeofango, manglofango [9, 17, 25, 26].

Mangeofango (see mangebue)

Manglofango (see mangebue)

Mango fango -- a northeasterly wind in Nimes in France [28].

Mangofango (see mistral)

Manse -- (1) winds blowing out of Bâtie-Neuve through the Manse Pass, at a distance of several kilometers to the east of the Bayard Pass; (2) a strong northeasterly wind in the region of Gap in France [28].

Marajos -- a strong and gusty northeasterly wind bringing rain precipitation, especially in the first half of the year, on the Amazon plain in Brazil [25].

Marenco -- an east-southeasterly wind over Lago Maggiore in Italy [2, 8].

Marin -- (1) a warm and humid southeasterly and southerly sirocco-type wind over the French Mediterranean coast; the appearance of this wind is connected with a low passing over southern France, northern Spain, and the Bay of Lyon; it is strong and regular, particularly frequent (20-30%) in May and October, may be felt in the Central Massif, where it is also known as the ayalas; in good weather, the marin is called the marin blanc, in the western Sevens, the autan, in the southern Sevens, the aygalas, and in Catalonia and Roussillon, the marinada; (2) a southeasterly wind in the high Durance Valley in France; (3) a southerly wind in Buis-le-Baronnies in the Dept. Drôme and in Bourg-Saint-Andréol in the Dept. Ardèche in France; (4) marin blanc is also the name for a light, humid breeze in Lower Languedoc; (5) an easterly and southeasterly wind in the Bay of Lyon; also: autun [2, 4, 7, 8, 9, 15, 17, 25, 26, 28, 29, 35, 36].

Marin blanc (see marin)

Marinada -- a term for a sea wind, warm and humid, blowing from the southeast in Catalonia; it also often carries the term garbe; it is the same as a marin in southern France [2, 8, 9, 17, 25, 26, 28].

Marinade -- an east-southeasterly breeze in the region of Mont-Louis in the eastern Pyrenees; this is a weak, irregular and warm wind, with cloudy sky [28].

Marinon -- winds out of the southerly direction blowing during the autumn and bringing rain over Lago Maggiore in northern Italy [25].

Mary -- a southeasterly wind breaking sea waves against the small village Maurin in Upper Ubaye; also: Lombarde [28].

Maskat -- a dry, often strong, föhn-type wind blowing from the mountain valleys near Maskat in Oman [25, 26].

Matanusca wind (see knik wind)

Matinal -- a daily wind blowing out of the east in the Morvan Mountains in the central part of the Central Massif, often blowing for several days, especially during the summer, bringing good weather; local names are: soulédre, vent du soleil or lou souledre [8, 25, 28].

Matinale -- a southerly wind in Engins in the Dept. Isère in France, blowing in the early morning [28].

Matinière -- (1) general term for winds descending during the night out of the northern Alps to the plains, for instance the pontias in Nyons, the levant in Tricastin, the solaure and solaire in the Dept. Drôme in France; (2) a northeasterly or easterly wind descending on cold days down the western slopes of the Alps, particularly during the morning hours, into the Bièvre Valley through St. Etienne de St. Geoirs, into the Rhône Valley through Grenoble; it brings cold and sunny weather [8, 25, 28].

Mauka breeze -- nighttime, cold, and refreshing winds in Hawaii [2, 8].

Maurienne -- a strong valley wind arising as a result of heating differences and a tunnel effect, out of a westerly direction throughout the whole Maurienne Valley in France [28].

Mauritius-orkan -- autumn whirlwinds in the southern part of the Indian Ocean around Mauritius Island [25, 26].

Mazra -- an eastern föhn-type wind over Lake Sevan [4].

Méan Martin -- a cold, northwesterly wind blowing throughout the whole year in Bonneval-sur-Arc in Sabaudia and bringing snow [28].

Medina -- a land wind blowing during the winter in Cadix in Spain [2].

Mediterranean wind (see sirocco)

Megas -- warm and dry southerly winds, föhn-type, blowing from Parnassus into Böotia, especially on the dry plain of Kopais in Greece [25].

Melan -- a bisa out of the northerly direction in Bourgoin in the Dept. Isère in France [28].

Meltém -- (1) a Turkish term for the etezja; (2) regular, often sudden, onset during the summer season of a northeasterly or easterly wind over the coast of Bulgaria and the Bosphorus; it sometimes arrives in the ripening season for several kinds of fruit, and it is from this that the name has the following additional forms: kabák ["pumpkin"], kirás ["cherry"], usum ["bunch of grapes"], karpus ["watermelon"]; also: karasmeltem, meltémi, meltemia, meltemnia [2, 4, 8, 9, 17, 20, 25, 26, 27].

Meltémi (see meltém)

Meltemia (see meltém)

Meltemnia (see meltém)

Mendes -- a southerly wind (from the direction of Mende) in the region of Marvejols in the Dept. Lozère in France; often occasioning rain precipitation, it is a wind of the Grec type [28].

Mergozzo -- a northwesterly wind over Lago Maggiore in Italy [8].

Merisi -- a term for a southerly desert wind, dry and hot, carrying a great amount of dust; it arises as a result of the great heating of the deserts during the afternoon hours during the summer and in the autumn in Egypt; it is also sometimes called samum; a desert wind out of the east is called a schobe [9, 17, 25].

Messin -- an easterly wind in northern Champagne (in the region to the south of Vouziers) [28].

Mestral (see mistral)

Mestrel (see mistral)

Michael-riggs -- autumn storms blowing over the British Isles around the 29th of September (the feast day for Saint Michael Archaniol). also: rig [2, 8].

Midnight wind (see Mitternachtswind)

Miejour -- (1) a warm and humid sea breeze blowing from out of the south during the hours around noon in Provence; (2) a southern wind in the region disposed to the south of the Ventoux Mountains in Roussillon; this wind is irregular and quite weak, dried out from its passage across the Pyrenees; also: Mit-Jorn; (3) a southerly wind in the region of Villefort in the Dept. Lozère, similar to a wind of the same name in Provence [2, 8, 25, 28].

Mietiel -- Russ. "metel"; Russian term for blizzard or snowstorm [9, 25, 26, 33].

Mikuni-oroschi -- a föhn wind out of the westerly direction to the southwest, descending from the Mikunitoge Mountains in Japan, connected with the passage of a low over the eastern side of the Tone Valley around Maebaschi [25].

A7-A114 224 FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
LOCAL AND REGIONAL WINDS: THEIR NAMES AND ATTRIBUTES, (U)
MAR 82 D MARTYN
UNCLASSIFIED FTU-ID(RS)T-1721-81

FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH
LOCAL AND REGIONAL WINDS: THEIR NAMES AND ATTRIBUTES, (U)
MAR 82 D MARTYN
FTD-ID(RS)T-1721-81

F/G 4/2

UNCLASSIFIED FTD-ID(RS)T-1721-81

NL

 2×2

DATE

51 MED
51

378

DTIC

Minuano -- a term coming from the Minuano Indian tribe occupying the area out of which the wind blows; this is a cold, winter wind, arising in the period from March to September, blowing out of the west or southwest over the eastern coast of southern Brazil, and especially in the region of Rio Grande do Sul; this is a light pampero [1, 2, 8, 9, 17, 25, 26, 27].

Mistral -- Lat. "magister" or "magistralis," "master, master wind"; (1) this is a cold and dry wind blowing out of the north, connected with the advection of cold polar or Arctic air into the western part of the Mediterranean Sea, when the main center of a low is located in the Gulf of Genoa, and there is a high over western Europe; the mistral is a wind arising as a result of the general atmospheric circulation, having a katabatic character and a jet-wind effect (down the Rhône Valley between the Central Massif and the Alps); it is often violent and gusty, attaining velocities of 27-38 m/sec, at altitudes of 2-3 km, it is even stronger, usually appearing in the winter and spring, whenever the temperature difference between the warm Mediterranean Sea and the cold land (across France) is at its greatest; it is observed between the Ebro Valley in Spain and Genoa in northern Italy; its durations are: from several hours up to several weeks, in Marseilles it lasts about 110-175 days during the year; the wind is clean and governs good weather; it is at its most intense at the mouth of the Rhône, where it attains on the average velocities of 40 m/sec, often the same in Provence and Languedoc, considerably rare in the section San Remo-Genoa; locally it carries the names: on the French Riviera, mistral; in the Sevens, maistrau, maistre, magistral, and sécaire; in Spain, the maestral; in Catalonia, the mestral; in Italy, the maestro, maestrale, and maestrali; on the French-Spanish border, it is known as the tramontane; on Minorca, the tramontana; in the Aude Valley, the cers or the cierce; in the Ebro Valley, the cierzo; in Provence, the ligo fango, lipo fango, lou mango fango, mangebue, mango fango; in Perpignan, the dramundan; in the region of the Ventoux Mountains, it is known under the name bise; the mistral descending from the Canigou Mountains into the Roussillon Valley is called the canigonenc; also: magnofango, mestrel, mistraou, mistrau, mystral; (2) a southeasterly wind in Bourg-Saint-Andréol in the Dept. Ardèche in France, similar to the mistral proper in the Rhône Valley [2, 4, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 28, 30, 34, 35, 36].

Mistral intre -- the mistral blowing out of northerly directions in Provence, it is very short-lived [28].

Mistral plein -- a northwesterly mistral in Provence [28].

Mistralas -- a weak mistral in Provence [28].

Mistralet -- a small mistral in Provence [28].

Mistrao bru -- a wind blowing from the direction of the Mediterranean Sea in the direction of the French coast, strong, of the nature of a jetstream, occasioning high sea waves, carrying rain precipitation [25, 26].

Mistraou (see mistral)

Mistraou bru (see mistrau bru)

Mistrau (see mistral)

Mistrau bru -- a humid mistral with rain or snow precipitation in the environs of Marseilles; also: mistraou bru [28, 35].

Mitgjorn (see Mit-Jorn)

Mit-Jorn -- (1) a warm and humid wind blowing from the north or northwest in the Bay of Cala Mitjorn over the northern coast of Formentera Island (in the Balearics); (2) a dry, föhn-type northerly wind in the region of Roussillon in the eastern Pyrenees; also called: Mitgjorn, Miejour [2, 8, 25, 28].

Mitternachtswind -- a nighttime mountain slope wind with a southerly direction, blowing during the last half of the night during the time of weather dominated by a high in the environs of Starnberg, Lake Ammer, and Würm in Bavaria; also: midnight wind [2, 9, 17, 25].

Miynek (see wir powietrzny ["tornado, whirlwind"])

Moazagotl -- a strong wind blowing across the Sudeten Mountain ridge into northeastern Germany during the cold months of the year, especially during the autumn [1, 2, 8].

Molan -- (1) a breeze blowing from Aeve in the direction of Genoa in Switzerland; (2) a northeasterly wind descending from Mont Blanc into Upper Sabaudia; it is a cold wind bringing variable weather [2, 8, 28].

Monsoon (see monsun)

Monsun -- the WMO definition: "This is a general atmospheric circulation wind characterized by seasonal stability in its prevailing directions and changing from season to season"; the term comes from the Arabic word "mausin," "season"; this term was introduced in 1650 by Varenus, who first used it to describe winds over the Arabian Sea, blowing for a period of several months from out of the northeast, and out of the northwest for several months thereafter; monsun winds were already known during the time of Alexander the Great; the term was used thereafter for similar kinds of winds blowing in other parts of the globe; it was even applied to the prevailing westerly and northwesterly winds in Europe during the summer in the form of the term "European monsun"; the most clearly expressed monsun circulation is developed in southern and southeastern Asia; the seasonality of winds out of opposing directions is connected usually with the annual temperature differences over the large area of the continent in comparison with the temperature of the ocean surface; this contributes to the occurrence of pressure differences; however, thermal causes are not sufficient for the formation of such a strong system of wind directional changes from season to season; it is believed instead (by Flohn, Fletcher) that they are the result of a shift in the general atmospheric circulation system; in the summer, Southern Asia is located in the region of equatorial westerly winds, and the eastern coastline of Asia is in the region of the northeasterly tradewinds at that time; during the winter, this system shifts to the south, and the tradewinds yield their temperate zone to the westerly winds, and the westerly winds in the equatorial zone are replaced by the tradewinds; Eaker suggests another version for the causes underlying the monsun: the summer monsun is a tradewind of the southern hemisphere, which, after it shifts across the Equator, changes direction from the southeast to the southwest (a shift to the north is a result of shifting lines of convergence of the tradewinds in the same direction); the winter monsun is a normal northern hemisphere tradewind; yet others maintain the thermal version for the origin of the monsun that has to do with the orographic effect which checks the air exchange from the north with the thermal low over Pakistan, so that the only possible open inflow of air can be from the southwest, the summer monsun; also: monsoon, muson [2, 8, 9,

10, 15, 18, 25, 26, 27, 36].

Monsun letni ["summer monsoon"] -- the WMO definition: "...an oceanic monsun blowing during the summer" [10].

Monsun zimowy ["winter monsoon"] -- the WMO definition: "...a continental monsun blowing during the winter" [10].

Monsunowy sezon ["the monsoon season"] -- the WMO definition: "...the time during which the summer monsun blows on the continent" [10].

Mont -- (1) an easterly wind in the village of Sainte-Foy in Sabaudia; (2) a northeasterly wind in Bourg-Saint-Maurice in Sabaudia; in both regions, it blows mainly during September, bringing precipitation [28].

Mont Thabor -- a southerly wind in Valmeinier in Sabaudia, blowing during the summer and bringing rain precipitation [28].

Montagne -- (1) a southerly wind blowing throughout the whole year in Lomagne in France; it appears particularly often during the winter, in the summer accompanied by rain and destructive storms; (2) an easterly wind in Moselle in France, a cold bisa with rain or snow [28].

Montagnère -- (1) a wind descending during the early morning out of the southern Alps in the direction of the Mediterranean Sea; (2) over the coast of Languedoc and in eastern Provence, this is the name for a weak northerly wind, cold and short-lived, which refreshes the summer nights but accents the winter cold, accompanied by good weather; it is a terminal form of the mistral; (3) a cold northeasterly wind descending from Préalpes de Digne in the Dept. of the Lower Alps and taking in of Lower Provence; also: montagnèro, montagneuse, montaguère, tramontana, tramontane [8, 25, 26, 28].

Montagnèro (see montagnère)

Montagneuse (see montagnère, tramontana)

Montguère (see montagnère)

Montaine (see Joran)

Montana monsoon -- a colloquial term for the Chinook in the Montana prairies [25].

Montbéliar -- a southerly wind in the region of Belfort in France; it announces spring and fall precipitation, in the summer it brings storms that interfere significantly with haymaking and harvesting; it is warm and blows often with great force [28].

Monterese -- a gusting northerly wind with a bora character, blowing from Monte Gargano into the Bay of Manfredonia in eastern Italy [25].

Montets -- a very strong southeasterly wind bringing precipitation into the Vallorcine-le-Buet in Upper Sabaudia [28].

Montis -- a local northerly and northeasterly wind blowing from Bardoline in the direction of Peschiera and Sirmione over Lake Garda in Italy [25].

Montlambert -- a westerly wind in the Saint-Pierre-d'Albigny Bain in Sabaudia [28].

Montmélian -- a westerly wind on the Left Bank of the Izer; this term comes from the village of Montmélian in France [28].

Moonchin (see munczin)

Moor-gallop -- a sudden squall over swamps in England [2, 8].

Morena -- a northerly humid wind in the region of Baku, greatly reducing visibility, arising when the center of a low is located over the sea, or when a high is maintained to the north of Baku, or it is in the process of shifting there [32].

Morgeasson (see morget)

Morget -- a strong land breeze blowing from the north in the hours 1500-1700 to 0700-0900 over the northern banks of Lake Geneva; during the winter and autumn, it blows the whole day long; this term comes from the locality of "Morges"; the lake breeze is called rebat; also: morgeasson [2, 4, 8, 9, 17, 25, 26, 27].

Moriana -- a northeasterly wind, often stormy, blowing during the winter over the Caspian Sea; with regard to temperature distribution and humidity, it is similar to a föhn [4].

Morianik -- a term for a sea wind in the region of the White Sea; also: morianka [31].

Morianka (see morianik)

Morianoj -- an easterly wind blowing during the day off of Lake Zhe-hai, at times called a bryza morska ["sea breeze"] [20].

Morvan -- a westerly wind blowing out of the Morvan Mountains in the region of Saussy in the Dept. Côte-d'Or; it arises especially during the winter season, accompanied by snow or rain precipitation [28].

Morvan soulaire -- this term comes from the Morvan Mountains; a southerly wind in Central France [28].

Muerto ["dead"] -- a strong northerly wind (summer norther), blowing during the summer in Mexico [2, 8].

Munczin -- a dry and hot föhn wind blowing in the Ganges Valley, when a high is located over the Chota-Nagpur Plateau and there is a low over the Punjab and Rajastan; according to the Russian transcription, this term probably suggests moonchin [4].

Muson (see monsun)

Mystral (see mistral)

N

Nachtwind -- Ger. "night wind"; a dry gust of night wind (land wind) in the southwestern part of Africa and the Congo [25].

Naczajnik (see sołodnik)

Naczalnik (see sołodnik)

Napędzający wiatr ["driving wind"] -- a term for winds that blow counter to the flow of a river, resulting at its mouth in a rising of the water level by several meters; this is observed in Leningrad at the mouth of the Neva, when barometric lows are moving across the Baltic out of the west or southwest toward the east; these winds are especially fierce when they are blowing over the relatively narrow and flat Gulf of Finland; in the Don River Valley, these kinds of winds are known as kerchak (Russ. "driven winds") [20].

Namib -- an exceptionally stable and steady southeasterly wind blowing over the southwestern part of the coastal desert of the Namib in Africa; it is part of the southern hemispheric tradewind system, corresponding to the Sahara harmatan [22, 23].

Nan -- a traverse wind out of a westerly direction in Saint-Pierre-d'Albigny in Sabaudia [28].

Narai -- a cold wind in Japan blowing from the northeast and the polar expanses of Asia [7].

Narbonés -- (1) a northerly wind in Roussillon connected with the advection of Arctic wind, and further with a steep drop in temperature, rain or snow precipitation and storms; it is also called: tramontane roussillonnaise; (2) in Provence, this term is also used for the very rare westerly wind; generally also: Narbonnais [8, 22, 28].

Narbonnais -- wind from Narbonne; a southerly wind in Roussillon, of the

tramontana type; when its origin is connected with the advection of Arctic air, it may attain storm velocities, accompanied by rain and snow precipitation; it is particularly strong in the environs of Perpignan, when it blows for several days; in Provence, it is rare, blowing from the west, and it is similarly rare in Lower Languedoc and in the southern Cèvennes, where it is mild and humid, blowing out of the southwest during the winter and early spring carrying precipitation and storms; also: Narbonés; generally: cers [8, 25, 28].

N'aschi -- an Arabic term for northeasterly winds blowing during the winter season over the southern slopes of the southern Iranian Mountains into the Persian Gulf, especially at the entrance into it and over the Makran coastline; it is similar to a bora, but it has an insignificant velocity, bringing with it cloudy weather and precipitation, carrying also a great amount of dust; it is connected with a high over the Iranian Plateau and a low over the Gulf, bringing cold polar air from over Central Asia; also: naschi, nashi [2, 4, 8, 9, 15, 17, 23, 25, 26, 27, 36].

Naschi (see n'aschi)

Nashi (see n'aschi)

Nawalnica (see huragan)

Nawałnica (see huragan, szkwa ["squall"])

Nebel wind (see fog wind)

Nemere -- a cold and strong westerly or southwesterly wind blowing down the Danube Valley, particularly in Transylvania, as well as on the Rumanian Black Sea Coast; it arises on the trailing edges of a low over the Black Sea, bringing snow precipitation, causing snow blizzards and a significant temperature drop; also: nemero [2, 4, 20, 25, 26].

Nemero (see neimere)

Nevada -- Spanish, a glacier wind blowing out of the mountains or snow-covered plains into a valley; this term is used also in Ecuador; also: nevados [1, 20, 25, 27].

Nevadas de San Juan -- winter winds accompanied by snow in the Bolivian Andes [25].

Nevados (see Nevada)

Niedobre powietrze ["ill wind"] (see wir powietrzny ["tornado, whirlwind"])

Niedobry wiatr ["ill wind"] (see wir powietrzny)

Night winds -- dry squalls arising during the night in southwest Africa and the Congo; also generally: nocny wiatr ["night wind"] [2, 8].

Nizowka -- Russian term for valley winds [20].

Nirta (see aloegoe)

Nocny wiatr -- a general term for local winds blowing during the night: wiatr górski ["mountain wind"], bryza lądowa ["land breeze"], as well as others; English night wind, German Nachtwind.

Nord -- a very strong and constant northerly wind in Baku, dry and cold, with high velocities (up to 40 m/sec); lasting 1-2 days, at times even 3-4 full days, crossing over the Apsheronsk Pass bringing marine microorganisms and land dust; the wind velocity increases at the foothills of the Caucas Mountains, similar in origin to the mistral; also: hazri [16, 20].

Nord-este pardo -- a winter, often strong northeasterly storm over the northern coastline of Spain, where as a result of blowing over the mountainous coastline, low-lying clouds are formed; accompanied by cloudy weather; also: grauer nord-ost [25].

Nord-ost (see noworosyjska bora ["Novorossiysk bora"])

Norder -- stormy northerly winds over the northeastern coast of Greenland; also: nortes; generally: norther [9, 15, 25, 26].

Nordet -- a northeasterly wind along coastal Flanders, in the winter season it is hot and dry; also generally: noroeet [28].

Nordföhn -- a föhn over the southern slopes of the Alps [9].

Noroet -- a gusting northerly and northwesterly wind over the English Channel from Boulogne in Flanders and over the French Atlantic coast; it arises on the trailing edge of a low, bringing rainstorms; also: nordet, norout, norroit, noruest, norvet [9, 17, 25, 26, 28].

Norout (see noroeet)

Norroit (see noroeet)

Nortada -- a local term for a strong and constantly blowing wind in the Philippine Islands connected with the winter monsoon; it appears particularly on the trailing edges of tropical cyclones (typhoons); also: nortadas [2, 8, 9, 17, 25, 26, 27].

Nortadas (see nortada)

Norte -- (1) a term for a northerly wind blowing during the winter in Spain; (2) a strong and cold northeasterly wind in Mexico and over the coastline of the Gulf of Mexico, an extension of the norther, also: nortes; (3) a term for northerly winds in Central America; (4) humid and hot northerly winds in Argentina; a warm wind in the central part of a low; it generally announces the arrival of cold, the pampero wind; the colloquial weather saying is: "strong nortes, strong pamperos" [2, 4, 7, 8, 9, 17, 25, 26, 27, 36].

Nortes (see norder, norte)

North-easter -- (1) a stormy wind bringing rain over the eastern coastline of the northern island of New Zealand; also: black northeaster; (2) a moderate, sometimes strong, northeasterly wind over the New England (USA) coastline, bringing polar sea air, very humid and cold, that as it meets with quasi-tropical air from the north or northwest, gives rise to cloudy and rainy weather [7, 16, 25, 27].

Norther -- (1) a strong and dry northerly wind carrying dust, blowing at the end of spring to early autumn in the California Valley and over the west coast of the USA, connected with a high to the north, lasting 1-4 days, bringing with it a significant rise in temperature; also called: California norther; (2) a strong and cold wind out of northwesterly to northeasterly directions arising over the southern part of the USA, particularly in Texas, and called thus: Texas norther; in the Gulf of Mexico and in Panama, as well as over all of Central America, it blows from the end of November to April; the cold air accompanying a cold high shifting to the north; commonly a norther is accompanied by warm northerly air with clouds and rainy weather; a norther brings a quite sudden drop in temperature, even by 13°C over the course of an hour; [Translator's Note: break in text].

Orsuré -- a stormy northerly or northeasterly wind in the Bay of Lyon over the French coast [2, 8].

Osos wind -- a strong northwesterly wind blowing out of the Los Osos Valley into the Saint Louis Valley in California [2, 8].

Oster-gardij (see gardij)

Ostföhn (see Bregenzer Fallwind)

Ostria -- Lat. "auster" ["southern"]; a humid and warm southerly and southeasterly wind over the Bulgarian Black Sea coast; it is usually a herald of worsening weather; also: notos [2, 8, 9, 17, 25, 26].

Ostro -- Lat. "auster" ["southern"]; Italian term for southerly winds [25, 26].

Ouari -- a southerly wind, similar to the chamsyn, appearing in Djibouti (formerly the French Territory of the Afars and Issas) [8].

Outo (see autan)

Ox's eye (see hurricane)

P

Pacific wind -- a term for a föhn in Colorado (USA) [25].

Padun -- a southerly wind at the mouth of the Dżwina [20].

Paesa -- a strong north-northeasterly wind over Lake Garda in Italy [2, 8].

Paesano -- Italian, from the same region; a nighttime, mountain wind over Lake Garda at Torbole in northern Italy; also: sopero, sover [2, 8, 9, 17, 18, 25, 26, 27].

Palouser -- a dust storm in northwestern Labrador in Canada [2, 8].

Pampeiro (see pampero)

Pampero -- (1) a cold, squall southerly or southwesterly wind blowing over the Argentinian pampas and in Uruguay, connected with the passage of a cold front; appearing in the period from June to October, lasting several hours to several days, carrying a great amount of dust; a precursor to the pampero is a long term of slowly falling pressures, and at times a sudden drop in pressure; the air is sultry with good visibility, sometimes a weak rain falls, followed by a subsequent increase in the amount of precipitation carried by a northerly wind (the norte); suddenly storm clouds appear to the southwest, after which there is a storm and the pampero begins to blow; the stronger the preceding north or northeasterly wind is, the more strongly blows the pampero; in Buenos Aires, the pampero appears 12 times a year, and in Montevideo 16 times, and in the Plejt River Valley 20 times; (2) a term for a squall-like and cold northwesterly wind observed on the Argentinian coast, mainly in the winter period (July-September); (3) sailors use this term for winds lasting a short while or a little bit longer and changing directions in a counterclockwise manner: from the northeast through the north, the west and south to the southeast, at which point they usually terminate; also: pampeiro [1, 2, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 34, 36].

Pampero seco -- a pampero without precipitation [2, 26].

Pampero sucio -- a pampero carrying dust [2, 26].

Panas oetara -- a strong, warm, and dry northerly wind blowing in February in Indonesia [8].

Papagayo -- this term comes from the Gulf of Papagayo; a strong northerly and northeasterly wind descending onto the Pacific coast of Nicaragua and Guatemala; it is a norte wind crossing the mountains and bringing good weather, most often appearing in January and February, at which time it is at its strongest, lasting 3-4 days, weakening during the hours 0700-1000 (under the influence of a sea breeze); it is possible that after it passes through the south, it can once again attain great velocities, and toward evening and at the beginning of nighttime, it may even have storm velocities; also: Papagayos, Popogaio [1, 2, 7, 8, 9, 15, 17, 18, 23, 25, 26, 27, 36].

Papagayos (see Papagayo)

Para-böen -- frequently occurring gusts of wind observed around midnight in the season of dry weather (June-October) at the mouth of the Amazon in the Pará Province [25].

Parrey (see perry)

Parry (see perry)

Pasat -- a system of general atmospheric circulation winds appearing in the tropical latitudes; they blow from highs in the subtropics in the direction of the equatorial low pressure region, having a northeasterly heading in the northern hemisphere and a southeasterly heading in the southern hemisphere; they are also called the northeasterly tradewinds and the southeasterly tradewinds; the tradewinds are very constant and regular in the eastern and equatorial regions of highs, particularly over the Atlantic; in January they occur around the 30° North latitude, in July at 35° North latitude; the boundary for the southern course is about 5° to the north of the Equator; in the Pacific, they occur only in its western half, and over the Indian Ocean, only to the south of the 10° South latitude mark; also: passat ("tradewinds") [9, 15, 25, 26, 36].

Paskud [Pol. "filth"] (see wir powietrzny ["tornado, whirlwind"])

Paskudnik [Pol. "sloven" or "slut"] (see wir powietrzny)

Passat (see pasat)

Passwind (see wiatr przełęczowy ["pass wind"])

Pazdiernik (Pol. "October") -- a northerly wind blowing during October in the North European part of the Soviet Union, bringing frost and deepening autumn weather, stripping the trees of their leaves, and it is from this that it has its other name: listoboj [Pol. "leaf fighter"] [20].

Peaseweep (see peesweep storm)

Peesash -- a hot and dry dust-laden wind, dust storm in India; also: peshash, pisachee, pisachi [2, 8, 25].

Peesweep storm -- a term for early spring storms in England and Scotland; also: peasweep, peesweep, peewit, teuchit, swallow storm [8].

Peesweep (see peesweep storm)

Peewit (see peesweep storm)

Perche -- a bisa blowing from the north in Saint-Jean-d'Hurtières in Sabaudia [28].

Perry -- a sudden squall in England; also: half a gale, parrey, parry, pirrie, pirry [2, 8].

Perth doctor -- a sea breeze over many tropical and subtropical coastlines that with respect to its refreshing action, has always been called "doctor"; in the environs of Perth in Australia, it is also called: Perth doctor; in the environs of Albany, the Albany doctor; in the environs of Esperance, the Esperance doctor; in Eucla, the Eucla doctor; and in Fremantle, the Fremantle doctor [25].

Peshash (see peesash)

Petit-Saint-Bernard -- a wind descending from the Petit-Saint-Bernard Pass and blowing with great force from out of a west-southwesterly direction into Aime in Sabaudia [8, 28].

Pfänderwind (see Bregenzer Fallwind)

Piner -- a quite strong breeze blowing from out of the north or northeast in England [2, 8].

Pirrie (see perry)

Pirry (see perry)

Pisachee (see peesash)

Pisachi (see peesash)

Plaouvinaou -- a colloquial term for a land breeze in the area of Marseilles, which contributes to the currents of hoarfrost and a subsequent cooling of the earth's surface [28].

Plouazaou (see traverse)

Ploudzaou (see traverse)

Plough wind (see plow wind)

Flow wind -- a strong wind connected with rain showers and storms in the USA; also: plough wind [2, 8].

Plutzal -- a southwesterly wind in Quercy in France; also: pluvial, vent de pluie [28].

Pluvial (see plutzal)

Pobiereżnik -- a southeasterly wind in the region of the White Sea; also: połunosznik [31].

Polacke (see Polak)

Polak -- a cold and dry northeasterly wind of the bora type, blowing mainly during the spring (the advection of cold polar air) out of Poland in the direction of Moravia and Bohemia; also: Polacke, Polake [2, 8, 9, 15, 17, 25, 27].

Polake (see Polak)

Połudenik -- a southerly wind over the White Sea, which brings during periods of bad weather increased amounts of water in the rivers flowing to the north; also: leto, letnik, połudennik, tieplak, ruszkij wietier ("Russian wind") [20, 31].

Połudennik (see południk)

Południak (see wir powietrzny ["tornado, whirlwind"])

Południca (see wir powietrzny)

Połunosznik (see pobiereżnik)

Ponent -- (1) a sea breeze blowing out of the west in eastern Provence and out of the south in the region of Var; (2) a term for a land breeze in central Roussillon; also: ponente [28].

Ponente -- Lat. "ponere," "to put or place"; in a figurative sense, it means "sunset, westerly direction"; (1) a term for a western wind over the western Mediterranean Sea, which gives rise to dry weather; when it is strong, it gives rise to squalls and storms; (2) a refreshing sea breeze in western Italy and on Corsica; (3) a western wind over the Côte d'Azur, a mistral; (4) in the northern part of Roussillon, it means a land breeze appearing early in the morning, changing its direction to the southeast; it precedes the tramontana; also: ponent [2, 7, 8, 15, 25, 26, 35, 36].

Ponentis -- a mild westerly wind with good weather, equal to the zephyros in Ancient Greece [25].

Poniente -- Ital. "westerly"; westerly winds in the Strait of Gibraltar, conditioned by the local topography, frequency amounting to 40-55%; it is a wind with a cyclonic character, appearing mainly during the winter; the jet-wind effect is caused by the narrowing of the Strait, which significantly increases its velocity; it brings with it cloudy weather and precipitation or a rising in the level of the sea water; opposite to it is the levante wind [2, 8, 9, 17, 18, 25, 27].

Pontiar (see pontias)

Pontias -- a nighttime, easterly mountain wind in the region of Nyons in the Dept. Drôme in France, blowing during the summer from the hour of 2100 throughout the entire night, and in the winter from 1800 hours throughout the whole night until sunrise; also: pontiar [2, 8, 17, 25, 26, 27, 28].

Pontiau -- a northeasterly wind in Allemont in the Dept. Isère, bringing rain precipitation and storms [28].

Poorga (see purga)

Popetany Jasiu ["drunken john"] (see wir powietrzny ["tornado, whirlwind"])

Popogaio (see Papagayo)

Poriaz -- a strong northeasterly wind over the Black Sea, in the region of the Bosphorus [2].

Porlezzina -- an easterly wind blowing from the Bay of Porlezzina above Lake Lugano on the Italian-Swiss border [2].

Portugeese norther (see Portugeese trades)

Portugeese trades -- the Portuguese tradewinds; (1) summer winds blowing out of the north in Portugal connected with the Azores high and shifting further to the

south in the direction of the Canary Islands, where they become the regular trade-winds; also: norther, Portugeese norther, Porguguese norther; (2) a breeze over the Portuguese and Spanish Atlantic coasts, especially in the region to the south of 40° North latitude, where in April it is observed for 21 days accompanied by a breeze, and in the winter for 15 days, blowing up to San Vincent [2, 4, 25, 27].

Portuguese norther (see norther, Portugeese trades)

Posjemok -- severe snow blizzards in the Soviet Arctic [9, 25].

Pot au noir -- a French term for the equatorial region of calms [25].

Potat -- a northerly bisa in Saint-Pierre-d'Albigny in Sabaudia; a cold wind bringing good weather [28].

Powicher (see huragan, wir powietrzny ["tornado, whirlwind"])

Powietrze (see huragan)

Powietrznica (see wir powietrzny)

Prèmontais -- a southeasterly wind often of hurricane force in Contamines-sur-Saint-Gervais in Upper Sabaudia, bringing rain precipitation [28].

Près -- a warm and dry southerly wind in Aillon-le-Jeune in Sabaudia, bringing variable weather [28].

Prester -- a wir powietrzny ["tornado, whirlwind"] or water spout in the region of the Mediterranean Sea around Greece [2].

Provenza -- a strong north-northwesterly wind in Rapallo in Italy [35].

Puelche -- (1) a warm easterly föhn wind over the western coast of South America (southern Chile); (2) a light nighttime land breeze over the eastern coast of the transtropical part of South America; (3) a rarely used term for a land breeze in regions where the Andes drop off sharply to the Pacific [2, 9, 17, 23, 25, 26, 27].

Puff of wind -- an English term identical with cat's paw; this term is used in Australia [27].

Punento-gardij (see gardij)

Purga -- Fin. "purkaa" ["break up, destroy, level to the ground"]; a very strong winter wind in Eastern Siberia and on the Kamchatka blowing primarily from out of the north with great velocity, carrying great amounts of dust or snow, lasting even as long as 10-14 days without a break; the same as buran, also: from English poorga [7, 8, 9, 15, 18, 25, 26, 27, 34, 36].

Purtk (see wir powietrzny ["tornado, whirlwind"])

Purtków łegun (see wir powietrzny)

Purtków Michöł (see wir powietrzny)

Pustynny wiatr [Pol. "desert wind"] -- a wind blowing over a desert area, very dry and dust-laden, hot during the summer and cold during the winter; in various parts of the world, it has different names: harmatan, chamsyn, samum, brickfielder, and others.

Pyrhenerwind -- a föhn in the Austrian Alps [8].

Q

Qarajel (see karajol)

Qaus (see kaus)

Qibla (see ghibli)

Quara (see karajol)

Quarajel (see karajol)

Quarnero -- a local name for a very strong bora in the eastern part of the Istria Peninsula; this term comes from the Kvarnero Strait; also: Kvarnero [9, 25].

Quas (see kaus)

Queensland hurricanes -- a term for tropical cyclones coming out of the east and moving to the northeast in Australia, occurring particularly frequently between Cooktown and Mackay in Queensland, during the autumn season (January-March) [25].

R

Raboutin -- a northeasterly wind in Gapençais or in the Fraissinousse Pass; it is rarely strong, occasionally dry, occasionally humid as a result of the influence of the bisa or the tramontana; this term comes from the place name Rabou, located at a distance of 15 km to the northeast of Gap; also: Raboutine [28].

Raboutine (see Raboutin)

Rachas (see williwaw)

Râchasses -- a southeasterly wind in Chamonix, blowing with hurricane force, occasioning rain precipitation [28].

Rafales -- Fr. "affaler," Dutch "afhalen" ["to furl sail or line"]; French (Dutch) term for a strong gust of wind in France, especially on the Bretagne coast; also: vent de rafale [25].

Raffiche -- a wind from out of the mountains, a strong bora in the Mediterranean Sea region; a refoli on the Istria Peninsula, reffoli above Lake Garda [2, 8, 9, 25, 26].

Rageas -- an easterly gusting wind descending (a bora) from Alma Dagħ into the Bay of Alexandretta (Iskenderun), appearing mainly during the winter season; also called: ghasiyah, ragut [2, 4, 9, 17, 25, 26, 27].

Raggiatura -- strong and violent impacts of wind on the coastlines of Italy, Sardinia, and Sicily; also: raggiature [2, 4, 27, 34].

Raggiature (see raggiatura)

Ragut (see ghasiyah, rageas)

Ramier -- (1) a southerly wind in Joyeuse in the Dept. Ardèche; this is the so-called "white wind," which does not bring rain precipitation, but points to a long-term dry spell; it is hot and very sultry; (2) a southwesterly wind in Villefort in

the Dept. Lozère, similar to the wind in Joyeuse [28].

Rampinu -- a term for a land breeze in eastern Sardinia and Sicily [35].

Raou -- a westerly wind in the Vaucluse massif and in Durance in France; also: rouaou [28].

Raumet -- a westerly wind in Bourg-Saint-Andréol in the Dept. Ardèche, blowing during the autumn; it is warm and strong, at times occasioning rainstorms; also: roumet [28].

Rebat -- a lake breeze over Lake Geneva, beginning around the hour of 1000 and lasting to 1600, arising during the period from April to September, blowing on the average of 10-12 days during the month [4, 8, 9, 17, 25, 26, 27].

Reboyo (see reboyos)

Reboyos -- a southwesterly stormy wind blowing 3-4 days over the coastline of Brazil during the rainy season; its occurrence is connected with the advection of cold on the trailing edge of lows moving from out of the northwest; also: reboyo [8, 9, 17, 25, 26].

Reffoli (see raffiche)

Refoli (see raffiche)

Reshabar -- "black wind"; a strong and dry northeasterly wind of the bora type, descending from the Kurdystan Mountains in Iran, hot during the summer and cold during the winter; also: black wind, rrashaba, rushabar [2, 7, 8, 15, 36].

Respos -- a northeasterly wind, similar to a mistral (in southern France and on the Mediterranean Sea coast) [9, 17, 25].

Retôrno dos aliseos -- a southeasterly tradewind over the east coast of Brazil during the period from October to March [25].

Rhonet -- a mistral of only slight strength in Bourg-Saint-Andréol in the Dept. Ardèche in France [28].

Rhönwind -- a mountain wind descending from the Rhön Mountains in the Sinn Valley in Lower Frankonia [25].

Rhounet -- a south-southeasterly wind in Aubenas in the Dept. Ardèche in France; this is probably a southerly wind deflected through the Alps and the Rhône River Valley [28].

Ribut -- strong and short-lived squalls appearing before a change in the southwesterly monsoon (May-November) over the eastern coastline of the Malakka Peninsula [2, 8, 9, 17, 25, 26].

Riefne -- a strong storm over Malta [2, 8].

Rig (see Michael-riggs)

Roaring forties (see ryczące czterdziestki)

Robin Hood's wind -- a humid, piercing wind with a temperature of about 0°C [2].

Rochebrune -- a spring and autumn southeasterly wind in Upper Sabaudia; it is the most violent wind in Mégève, heralding rain [28].

Rochilles -- this is a bisa of the Upper Alps blowing through the Clairée Valley in the Dept. Névache; it contributes to the occurrence of frosts during the spring and winter, as well as rime ice, covering trees and brush, as well as the freezing of the rivers [28].

Rodada -- a Spanish term used by sailors in referring to winds that change their directions by 360°, over the course of a 24-hour period, from the northeast moving in a clockwise direction; also: rondada, viento roterio [2, 4, 8].

Rognet -- a southeasterly wind in Saint-Alban-d'Hurtières in Sabaudia, bringing heat and precipitation [28].

Rondada (see rodada)

Rosau -- a westerly or southwesterly daytime breeze in the Valley of the Rhône [2, 8].

Rotating column (see wir pyłowy ["dust whirlwind"])

Rotenturm wind (see Turnu Roșu)

Rouaou (see raou)

Rouergas -- a west-southwesterly wind (from "Rouergue") in Nîmes, blowing often in December [28].

Rouergue (see arouergue)

Roumet (see raumet)

Roumidou -- a westerly winter wind in Bourg-Saint-Andréol in the Dept. Ardèche in France; a cold wind that may also blow with good weather [28].

Rousseau -- an easterly breeze blowing early in the morning until 1000 hours in the region of the Perta Pass in the Dept. Drôme in France, at altitudes lower than 700 m [28].

Rrashaba (see reshaba)

Rumillien -- an easterly wind out of the direction of Rumilly, in the southwestern part of Upper Sabaudia; it is a warm and humid wind, bringing with it rain precipitation; during the summer, it also brings storms [28].

Rushabar (see reshaba)

Russkij wietier ["Russian wind"] (see południk)

Ryczące czterdziestki ["howling forties"] -- a steady westerly wind blowing with

velocities of 18-20 m/sec over the ocean between 40 and 50° South latitude; these are general atmosphere circulation winds; English "roaring forties" or "westerlies"; German "Heulende Vierziger"; Russian "revushchiye sorokoviye"; they are also called the howling fifties [7, 9, 18, 33].

Rymanowski wiatr ["Rymanow wind"] -- a wind out of southerly directions blowing in the Tabor River Valley, in the environs of Rymanow; arising often at the same time with the halny wiatr in the Tatra Mountains, lasting 2-7 days, most often in the autumn-winter season, more rarely in summer; it has the character of a föhn with regard to its drying and heating effect; it arises when a low is located over the Atlantic and the Arctic Sea, and there is a high to the southeast of the Carpathian Mountains [14, 36].

Ryterski wiatr ["Rytro wind"] -- a wind out of southerly directions blowing in the Poprad Valley, especially along the section from Stary Sącz to Leluchow, reaching significant velocities as a result of the jet-wind effect in the vicinity of Rytro; this is an equivalent of the halny wiatr, with which it often blows at the same time; it lasts 2-7 days, most often during the fall and at the beginning of winter; it appears when there is a low located over the Atlantic and the Arctic Ocean (with the center over the British Isles), and a high over the expanses to the southeast of the Carpathian Mountains [14, 36].

S

Safha -- a dry föhn wind (an extension of the etezja) descending from the Taurus Mountains, mainly in the period from June to August; it may be felt in Lower Mesopotamia and in the Persian Gulf; this term is also used in Djeziré [4].

Sahat -- a local term for the sirocco wind in Morocco [23].

Sahel -- strong wind carrying great amounts of sand and dust, in Morocco [2, 8, 9, 25, 26].

Saint Gilles wind -- a southeasterly tradewind rising on the leeward side of the Reunion Islands in a westerly direction; these kinds of situations are observed in the vicinity of St. Paul [9, 25].

Saint-Jean-de-Coux -- a southerly wind, out of Saint-Jean-de-Coux into Saint-Thibaud-de-Coux in Sabaudia; it is a warm wind bringing rain precipitation [28].

Sajkan -- a westerly or southwesterly wind blowing with great force over Lake Alakul; its occurrence is connected with a cold front [5].

Sam (see samum)

Samoom (see samum)

Samoun (see samun)

Samum -- Arab. "samma," "poison," or "ssim," "poisonous"; a very dry, hot desert wind with a great amount of dust and sand in North Africa and Arabia; the samum appears as a result of local heating, it has a squall character with dust storms, lasting usually 15-20 minutes, at times it may last several days in a row, at which time it is called "fire wind," or "the breath of death"; also: merisi, sam, samoom, sand storm, sanum, schobe, semoon, semoun, sim, simmoon, simoom, simoon, ssimum [4, 7, 8, 9, 15, 17, 18, 20, 25, 29, 34, 36].

Samun -- dry and hot south or southeasterly winds carrying a great amount of dust in Palestinian Syria and Beludzhistan [Translator's Note: an old name for the

area comprising southwestern Iran almost all the way to India, between 24° 50'-30° 20' North latitude and 61° 20'-70° 45' East longitude]; the temperature rises to over 55°C, relative humidity lowers to below 10%; also: samoun, simoon, simoun, simun; in Beludzhistan, in places it is also called the badé alvar [27, 29].

Sand auger (see wir pyłowy ["sand whirlwind"])

Sand devil (see wir pyłowy)

Sand storm (see samum)

Sandhose (see wir pyłowy)

Sansar -- a cold northwesterly wind in Iran; also: sarsar, shamsir [2, 8].

Santa Ana -- a hot and dry northeasterly or easterly wind blowing from out of the deserts in eastern California, carrying a great amount of dust and sand; it descends from the mountains along the river valleys with great velocity (38-42 m/sec) onto the Pacific Ocean coast; the term comes from the Santa Ana Pass and the Santa Ana River [1, 2, 7, 8, 15, 16, 19, 25, 36].

Santa Anna -- a term for a norther in California [9, 26, 27].

Santa Maria -- a term for the föhn in California [16].

Santa Rosa storm -- an annual storm at the end of August in Argentina [8].

Santas (see Santasz)

Santasz -- an easterly mountain wind blowing with average velocities of 20-22 m/sec through the Santasz Pass into the eastern parts of the Issyk-kul depression, often arising at the beginning and end of the cold season (October-November and March-April); also: santas [4, 5, 16, 20, 32].

Sanum (see samum)

Saoet (see aloegoe)

Sárca -- a strong northerly wind over Lake Garda in northern Italy [8].

Sarladais -- a northwesterly wind (from out of the vicinity of Sarlat) in the region of Gourdon in France [28].

Sarma -- a cold, dry, and gusting wind of the bora type, blowing from the northwest or north-northwest out of the Baikal Mountains, through the narrow Sarma Valley above Lake Baikal; the velocity of the wind at the mouth of the river is on the average 10 m/sec, at the most over 40 m/sec; the wind carries a great amount of water, water drops from the lake, which instantly freezes; the sarma reaches its greatest frequency in the period from October to December, when the eastern periphery of a high with low temperatures shifts out of eastern Siberia behind a low moving to the east away from Lake Baikal; another reason for the increasing barometric gradient is the relatively hot surface and near surface of the lake [4, 16, 25, 34, 36].

Saroa -- a strong northerly wind over Lake Garda in northern Italy [2].

Sarsar (see sansar)

Sartouk -- a wind blowing in the vicinity of Pahlavi and the Enzeli swamps in Iran [6].

Saryk (see kizyl-buran)

Satan (see wir pyłowy ["dust whirlwind"])

Savet -- a wind over Lake Toba in northern Samatra [2].

Savoyarde -- a northeasterly wind (from out of Sabaudia, Fr. "Savoie") into Allemont in the Dept. Isère; it is cold and gives rise to rainstorms [28].

Schaitan -- summer sandstorms in Beludzhistan (Pakistan) [see Translator's Note under "samun"] [9, 17, 25, 26].

Scharki (see kaus)

Schamal (see szamal)

Scharnitzer Wind -- a long-lived and cold northerly and northwesterly wind blowing out of the Scharnitz Pass in the Tyrols [2, 8, 25, 26].

Scheheli -- a southerly and southwesterly wind bringing dust and sand in southern Algeria; it arises in the leading parts of lows over the Mediterranean Sea; similar winds in Libya have the name ghibli, and in Egypt chamsyn [25, 26].

Schemal (see szamal)

Schemal chłodny ["cold szamal"] (see szamal)

Schergui (see chergui)

Schirocco (see sirocco)

Schirokko (see sirocco)

Schläfer -- local term for the etezja, with respect to its dying down; English "sleeper" [9, 17, 25, 26].

Schlern Wind -- a mountain wind out of a westerly direction (from Schlern) in the Etsch Valley, in the vicinity of Bozen, in the southern Tyrols [8, 9, 25, 26].

Schmutziger nordwind ["dirty north wind"] -- a northeasterly wind (monsoon), which on the windward side of the mountainous eastern coast of Luzon Island in the Philippines brings with it cloudy and rainy weather [25].

Schneefresser [Ger. "snow eater"] -- a term for Alp föhns, especially spring föhns which give rise to the rapid disappearance of the snow [17, 25].

Schobe (see samum)

Scirocco (see sirocco)

Scirocco chiaro -- Ital. "cloudless sirocco"; a sirocco of anticyclonic origin (a high over the eastern or southern coastline), bringing cloudless weather during the spring period, at the beginning of the summer and in the autumn [27].

Scirocco di levante -- Ital. "easterly sirocco"; a föhn-type wind blowing in southern Greece between Pylos and Kyparysia; the wind descends from the coastal mountains and blows from out of the southeast, the east, and then out of the north; at times it is so strong that it may tear loose stones and knock down horseriders; also: sirocco de levante and sirocco di levante [2, 4, 27].

Scirocco marcio -- Ital. "lazy sirocco"; a sirocco that disappears for short periods, causing temperature increases and increases in humidity, at times with rain [27].

Scirocco scuro -- Ital. "dark sirocco, gloomy sirocco"; a sirocco of cyclonic origin, usually blowing out of the southeast or south-southeast and bringing cloudy and rainy weather [27].

Sciron (see skiron)

Sea turn -- a wind from off the sea, often with a thin fog; this term is used mainly in New England [8].

Seca -- dryness, drought, or a dry wind in Brazil [8].

Sécaire (see mistral)

Sechard -- a föhn over Lake Geneva in Switzerland [2, 8].

Seefelder Wind -- a wind blowing out of Telfs, in the Inn River Valley, over the Seefeld Highlands in the northern Tyrols [25].

Seg-Soulei -- a solar wind in the environs of Rouergue in France [28].

Seguin -- a sea breeze in the southern Alps, which changes its direction along with the sun and reaching up to the snow-covered peaks causing an increase in relative humidity and a melioration of the summer heat; also: solaire [28].

Seistan -- Per. "fly, rush forward"; a strong wind out of the northwest or north-northwest, which begins at the end of May or at the beginning of June and blows through the historic district of Seistan in eastern Iran and western Afghanistan, lasting to the end of September; because of its duration, it also carries the name: "120-day wind" (bad-i-sad-o-bistroz); its velocity may reach 31 m/sec, carrying a great amount of dust; the occurrence of this wind is connected with a summer thermal low over the northwest portion of India [1, 2, 7, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Selatan -- a strong and dry southerly wind in Malaya; also: slatan; generally also: broeboe [8, 27].

Semoon (see samum)

Semoun (see samum)

Sempu (see tajfun ["typhoon"])

Septemtrio -- an Old Roman name for a northerly wind beginning in Septemtrio, the constellation Ursa Major [25, 26].

Serokos -- a southeasterly wind over the Bulgarian coast [20].

Shaitan (see wir pyłowy ["sand whirlwind"])

Shaluk -- a quite hot and dust-laden wind blowing out of the desert (in addition to the samum) [2, 8].

Shamal (see szamal)

Shamsir (see sansar)

Sharki (see kaus)

Sharkia -- a dry and hot easterly wind connected with the leading portion of lows over the eastern part of the Mediterranean Sea, blowing in the winter in Jordan and Israel [25].

Sharqi (see kaus)

Shemaal (see szamal)

Sherki (see kaus)

Shimal (see szamal)

Shiokaze -- a term for sea winds in Japan [25].

Shlour -- a term for the sirocco in Syria and Lebanon [23].

Shumal (see szamal)

Shuquee (see kaus)

Shurgee (see kaus)

Shurkiya (see kaus)

Si giring giring (see aloegoe)

Siebengebirgswinde -- a northeasterly nighttime wind (mountain wind) blowing out of the Siebengebirge in the vicinity of Bonn and Beuel [25].

Siffanto -- a southwesterly wind blowing over the Adriatic, at times with great force [2, 8].

Signa (see sigua)

Sigua -- a local name for the monsoon in the Philippines; also met: signa [2, 8, 18, 27].

Sikejoron -- Old Greek term for the mistral [4].

Simm (see samum)

Simmoom (see samum)

Simoom (see samum)

Simoon (see samun)

Simoun (see samun)

Simun (see samun)

Sirocco -- Arab. "sharq" ["the east"]; (1) a warm wind blowing out of the south or southeast out of the Sahara, where it has the name chom ("hot") or arifi ("dead"), and out of Arabia, where it is a dry and greatly dust-laden desert wind; after it passes across the Mediterranean Sea, it becomes more or less moist, depending on the duration of its passage over it; it arrives at the shores of southern Europe as a warm and humid wind, sometimes with fog and precipitation; in North Africa, it often has a föhn character; after passing across the mountains, it becomes adiabatically warmed, having generally the properties of a dry wind, destructive to plants and even to whole harvests, having a very adverse effect on people's feelings, bringing an increase in temperature up to even 45°C; the appearance of the sirocco in the region of the Mediterranean Sea is conditioned by the presence of lows passing to the east over its southern part or over North Africa; these kinds of situations often arise during the autumn, winter, and spring; local terms for this wind are: in Italy, scirocco; in Greece, scirocco di levante; in Portugal, xaroco; in Spain, jaloque, leveche, xaloque; in Catalonia, xaloc or xaloch; along the length of the Rhône, eissero; on Zakynthos Island, the lampaditsa; in France, marin; also: schirocco, schirokko, Mediterranean wind; desert winds which give rise to the beginning of the sirocco proper are: the North African samum, the Egyptian chamsyn, the chili in Morocco, Algeria, and Tunisia; and the ghibli in Libya; (2) a term for hot and very dry dust-laden winds in Arabia, Palestine, and Mesopotamia [2, 4, 7, 8, 9, 15, 17, 20, 25, 26, 27, 28, 29, 34, 35, 36].

Sirocco de levante (see scirocco di levante)

Sirocco di levante (see scirocco di levante)

Sirocco levant -- an easterly or northeasterly wind in the Mediterranean Sea and Black Sea basin [20].

Sirocco zimne -- Pol. "cold sirocco"; an easterly wind blowing during the winter in Syria, Israel, and Jordan; it is always dry, cold, and dust-laden [29].

Siroeang (see aloegoe)

Sirokko (see sirocco)

Siwasz (see spędzające wiatry [Pol. "driving winds"])

Siwierko -- an easterly, cold wind blowing out of Siberia in the direction of the Volga in the vicinity of Volgograd.

Skiron -- a northwesterly wind, cold in winter, but warm in summer, blowing over the Isthmus of Corinth, between Megara and Corinth (the Skiron Cliffs) into the Gulf of Saronikós; also: Sciron [2, 8, 15, 25].

Slatan (see broeboe, selatan)

Sleeper (see Schläfer)

Słup [Pol. "pole, stake, pillar, column"] (see wir powietrzny ["tornado, whirlwind"])

Sno (see elvegust)

Snoweater -- a local term for the Chinook in Colorado (USA); also generally: Chinook [25].

Solaire -- a term for easterly winds in Central and Southern France; (1) a southeastern wind in Touraine; (2) a southwesterly wind in Morvan, Maine, and Perche; also: vent sous soleil; (3) a solar, southeasterly wind in the area of Laugres and

Drôme; it blows out of the Alps valleys; also: seguin, solaure, soulaire, soulédras, soulédre, souslaire [2, 28].

Solano -- Span. "easterly wind"; an easterly or southeasterly wind blowing during the summer period over Gibraltar or southeastern Spain, bringing heat, an increase in humidity, precipitation, and, when it is dry, dust [1, 2, 7, 9, 15, 20, 25, 26, 27, 36].

Solaure (see solaire, soleure)

Solaures -- a solar wind, a wind of good weather, arising on the French slopes of the western Alps [9, 25].

Soleure -- an easterly wind blowing across the bottom of the Drôme Valley, cold and dry, with rain or a north wind following after it; also: solaure, solore [2, 8, 28].

Solore (see soleure)

Sołodnik -- a very cold southwesterly wind blowing during the winter at the mouth of the Kolyma River; also: nachaynik, nachalnik [31, 32].

Sondo (see zonda)

Sonora sturm -- Ger. "Sonora storm"; this term originates from the Sonora Peak in California and the State of Sonora in Mexico; it is a term for storms observed in the mountains and deserts of lower and upper California with strong winds [2, 8, 18, 25, 26, 27].

Sopero (see paesano)

Sorieure -- a breeze out of the east blowing in Montaud in the Dept. Isère; it is a cold and dry wind, prevailing usually from 0900-1000 hours [28].

Soujet -- a southeasterly wind blowing in Les Déserts in Sabaudia; observed during the autumn, when it brings increasing cold and precipitation [28].

Soulaire (see solaire)

Soulano -- an easterly wind in the eastern Pyrenees [28].

Soulédras -- a wind blowing out of the sunset in Rouergue in France; also generally: solaire [8, 28].

Soulédre -- a solar wind blowing out of the eastern sector in Gers (known here also as bent de soulédre), Quercy, Languedoc, Rouergue, and in the central part of the Central Massif (also called: lou soulédre); this is a cold wind, especially in the winter, bringing with it good weather; also generally: matinal, solaire [8, 28].

Souliera -- a southerly wind which often brings precipitation into Bas-Limousin in France [28].

Sou'easter (see south-easter)

Souslaire (see solaire)

South-easter -- (1) winter storms out of the southeast in San Francisco Bay; (2) a southeasterly, strong, and sometimes stormy wind in the region to the southwest of the Cape of Good Hope; this wind blows out of the direction from Table Bay, forming a bank of föhn clouds on the windward side of the Table Mountains, at which time the wind has the name black south-easter; at times, however, it brings with it cloudless weather and it is called in this case the blind south-easter; on the leeward side of the Table Mountains, despite the adiabatic heating, the wind is refreshing and carries the name Cape doctor; the south-easter wind arises mainly in the hot half of the year (October-March); also known as: sou'easter, Table Mountain [7, 17, 25, 27].

Souther -- a southerly wind with particularly great force [2].

Southerly burster (see burster)

Southerly buster (see burster)

Southwester -- a term for a strong southwesterly wind; also: sou-wester [2].

Sou'wester (see southwester)

Sover (see paesano)

Soyokaze -- a springtime wind (March-April) moderately strong, bringing precipitation in Japan [25].

Spędzające wiatry [Pol. "driving winds"] -- winds blowing in accordance with the direction and course of a river, occasioning significant surging of the waters at the region of the mouth; on the Sea of Azow coast, it is called sivash, at the mouth of the Don, the girlovoy wietier [20].

Squamish -- a strong bora-type wind over the coast of Colombia [23].

Srajdek [Pol. "little shit"] (see wir powietrzny ["tornado, whirlwind"])

Srala [Translator's Note: this and the following Polish terms suggest the word "shit"] (see wir powietrzny)

Srala Bartek (see wir powietrzny)

Srala Jasiu (see wir powietrzny)

Srel (see wir powietrzny)

Srela (see wir powietrzny)

Ssimum (see samum)

Steppenwind -- a cold northeasterly wind observed often over Germany [7].

Stikine wind -- a strong and gusty east-northeasterly wind observed during the period from October to March and attaining hurricane velocities over the southern coast of Alaska, near the Wrangel Mountains; it occurs when a strong barometric gradient is formed between the Gulf of Alaska and the internal North American

continent; the term comes from the Stikine River or from the mountains of the same name; see also: Taku wind [2, 7, 8, 18, 27].

Stok (see Novaya Zemlya bora)

Struma [Gr. "Strimón"] -- a cold winter wind descending down the valley of the Struma (Strimón) into the Orfansky Gulf (the Aegean Sea) [2, 8].

Suahili (see kaus)

Suchowiej [Russ. "dry wind"] -- a dry and hot wind out of the southwesterly direction arising during the summer in the steppes and the semi-arid European parts of the Soviet Union, as well as in Kazakhstan; in agrometeorological practice, the suchowiej is considered to be a wind with velocities over 5 m/sec, even though in one observational period, the relative humidity dropped below 30%, the temperature rose to 25°C and more, and the nonsaturation of humidity exceeded 20-22 mbar; suchowiej winds are observed particularly often over the Subcarpathian Lowlands, connected with the edges of a high over this region; the rise in temperature and fall in relative humidity are results of local transformations in the air masses, especially in the Arctic air masses; the suchowiej is called "burning without fire"; the sign that this wind is approaching is the appearance of a haze which gives an opalescent color to objects placed at a distance; this wind causes a significant increase in evaporation, carries a great amount of fine-grain dust, and destroys the soil and field culture; English sukhovei, sukhovej; German ssuchowej [8, 15, 18, 25, 36].

Suchy pasat [Pol. "dry tradewinds"] (see harmatan)

Sudestades (see suestado)

Sudois -- a southwesterly wind over Lake Geneva in Switzerland [2, 8].

Suer -- a strong south-southwesterly wind over Lake Garda in northern Italy [2, 8].

Suestado -- Span. "southeasterly wind"; a very strong southeasterly wind observed mainly over the coastline of Argentina, Uruguay, and Brazil during the

winter, accompanied by unpleasant rainy weather; the unpleasant weather is all the stronger, the deeper the low penetrates over the Parana in the direction of the Atlantic, and there is a high located at the same time over the Andes; the suestado is dangerous for sailing; also: sudestades, su-estado, suestados [1, 2, 7, 9, 18, 25, 27, 36].

Su-estado (see suestado)

Suestados (see suestado)

Suhaili (see kaus)

Sukhovei (see suchowiej)

Sukhovej (see suchowiej)

Sumatra -- strong storm squalls out of southeasterly to northeasterly directions, occurring during the period of the southwestern monsoon (April-November) over the islands of the Malasian Archipelago, mainly in the Malakka Strait; the sumatra approaches along a front with a length of 160 km stretching from the southwest to the southeast; it appears during the night, usually lasting a couple of hours; the Sumatra Mountain chains, which run parallel to the coastline and perpendicular to the monsoon for a distance of 320 km, have an influence on the occurrence of this wind; also: Sumatrane, Sumatrans [1, 2, 7, 8, 9, 25, 26, 27, 36].

Sumatrane (see Sumatra)

Sumatrans (see Sumatra)

Sur -- a cold wind in Brazil [2, 8, 18].

Suraçon -- cold storm winds blowing out of the south during the cold half of the year in Bolivia and the Peruvian Alps; it occasions a temperature drop of 20°C; also: surazo, surazos, vriajems [2, 7, 8, 9, 18, 25, 26, 36].

Surada -- a sea breeze out of a southerly or southeasterly direction in central

Chile, appearing around 1000 hours in Valparaiso, having the character of a squall [23].

Surazo (see suraçon)

Surazos (see suraçon)

Suroet -- a stable, mild southwesterly wind bringing precipitation to the Flanders, Breton, and Atlantic coasts of France; also: surout, surroit [2, 8, 9, 25, 26, 28].

Surout (see suroet)

Surroit (see suroet)

Suzukaze -- a good weather wind occurring on the mountain slopes in Japan [25].

Swahili -- storms in the Persian Gulf [23].

Swallow storm (see peesweep storm)

Swider (see wir powietrzny ["tornado, whirlwind"])

Szygy -- westerly winds (a continuation of the southwesterly monsoon) between New Guinea and Australia, over the Arafura Sea and in the Torres Strait [2, 25, 27].

Szałonik [Pol. "madness, rage"] -- a southeasterly wind over Lake Ilmen; it blows from the mouth of the Shelon River; the wind is caused by lows moving along the northern coastline of the Soviet Union [20].

Szamal -- Arab. "sima" ["north"]; this wind blows out of northerly directions, most often blowing from the northwest in the valleys of the Tigris and Euphrates Rivers and over the Persian Gulf; during the summer season, it normally lasts 1-5 days, blowing over the course of a day with velocities reaching 13 m/sec, and weakening then in the night; the sky is cloudless, the air dry and heavily laden with dust; it begins in June and July, and it may last about 40 days; it is called at

this time the barih, which means: "40-day szamal," or "the great szamal"; sometimes it appears during the winter season, especially in southern Iraq and over the northern part of the Persian Gulf; it brings with it rain precipitation and short-lived storms, for which it is also called the cold szamal; also: chamal, chemal, schamal, schemal, shamal, shimal, shemaal, shumal, szemal [1, 2, 3, 4, 6, 7, 8, 9, 15, 18, 20, 25, 26, 27, 36].

Szaraniec (see wir powietrzny ["tornado, whirlwind"])

Szarki (see kaus)

Szełonik -- a southwesterly wind in the region of the White Sea [31].

Szełonnik -- a southeasterly föhn-type wind blowing with velocities up to 20 m/sec during the late autumn, often during the winter, over the southern Baikal [4, 22, 32].

Szemal (see szamal)

Szilok -- a wind out of southerly directions over the western coasts of Yugoslavia, Albania, and Greece [33].

Szkwa -- an atmospheric phenomenon characterized by very great changes in wind velocity lasting for several minutes, often connected with rainstorms and other storms; otherwise: nava nica.

Szłuk (see chlouk)

Szturm (see huragan)

Szturma (see huragan)

Świni wichur [Pol. "pig wind"] (see wir powietrzny ["tornado, whirlwind"])

Świniaczy ogon [Pol. "swine fire," "pig fire"] (see wir powietrzny)

Świnianka [Pol. "swinishness"] (see wir powietrzny ["tornado, whirlwind"])

Świnie gówno [Pol. "pig shit"] (see wir powietrzny)

Świński bobek [Pol. "pig's turd"] (see wir powietrzny)

Świński glut (see above)

Świński wicher (see above)

Świński gówno [Pol. "pig shit"] (see wir powietrzny)

T

Tablecloth (see Cape doctor)

Table Mountain southeaster (see southeaster)

T'ai fung (see tajfun ["typhoon"])

Taifun (see tajfun)

Taino -- term for a tropical cyclone in the region of the Antilles [8].

Taifu (see tajfun)

Tajfun ["typhoon"] -- Chin. "t'ai-fung" ["big, great wind"]; local term for tropical cyclones arising in the area of the South China Sea, the Philippines, and the Pacific to the west of the Philippines up to the Island of Guam; typhoons most often occur in the late summer and autumn, the average number of typhoons of hurricane force is 20; in general, they move in the direction of Korea, and above the 20-25° North latitude, they move to the northeast, sometimes passing over southern Japan, and some of them, in a transformed form, even reach the Kamchatka Peninsula; also: bofu, gutaj, sempu, taifun, tajfu, tufan (Arab. "smoke"), tyfon, typhon (Gr. "monster," "freak"), typhoon [8, 9, 15, 18, 19, 25, 26, 36].

Taku wind -- a strong easterly or northeasterly wind blowing during the winter season (October-March) and attaining hurricane force in the region of Juneau in Alaska; the term comes from the River Taku, at whose mouth the velocities may even be as high as 35 m/sec, similar to the Stikine wind [2, 7, 8, 18, 25, 26, 27].

Talmescher Wind (see Turnu Roşu)

Talwind [Ger. "valley wind"] -- a descending, cold mountain wind blowing during the evening and night during times of peaceful weather induced by a high, in the large Münster Valley in Alsace [25, 26].

Tamal -- a dry and cold wind descending from the Taurus Mountains [4].

Tamboen (see aloegoe)

Tanga mbili -- a term for a wind observed in the period between monsoons, and also the name for this transitional season in Zanzibar [9, 17, 25, 26].

Tarantata -- a strong northwesterly breeze over the Mediterranean Sea [2, 8].

Tarraou -- a mistral in the region of Montagnac between Montpeliers and Béziers [28].

Tauernwind -- a mountain wind in Upper Carinthia in Austria descending out of the Taurs [9, 17, 25].

Tebbad (see bad-i-kasif)

Tehuantepec (see Tehuantepecer)

Tehuantepecer -- term coming from the Gulf of Tehuantepec in Mexico; a strong, gusty, dry, and cold wind blowing out of the north and northeast during the winter season over the area of the Gulf of Tehuantepec; the origin of this wind is connected with the advection of cold polar air (a high over North America), which moves into the Gulf of Mexico and the Gulf of Campeche with the wind called norther or norte, crossing the isthmus and the pass between the mountains of Mexico and Guatemala, where the velocity increases as a result of a jet-wind effect; it descends into the Gulf with storm force and may be felt at distances of 16 km from the shore; this is a bora-type wind; also: Tehuantepec, Tehuantepecers, Tehuantepeker [2, 7, 8, 9, 15, 16, 18, 25, 26, 27, 36].

Tehuantepecers (see Tehuantepecer)

Tehuantepeker (see Tehuantepecer)

Temporal (see temporale)

Temporale -- Span. "rainstorms"; a rainy southwesterly or westerly wind over the Pacific coast of Central and South America; this is a deflected southeasterly

tradewind; in central Chile, these winds have a northerly component and bring snow precipitation, particularly often appearing in July and August with storm force; also: temporal, temporales [2, 8, 17, 25, 26, 27, 36].

Temporales (see temporale)

Tenggara -- a dry and strong föhn wind blowing out of the east or southeast onto the leeward slopes of the Sperunde Archipelago, especially in the Celebese, during the period of the northeasterly monsoon [8, 15, 25].

Tereno (see terrenho)

Terral -- Span. "of the land"; (1) a term for land breezes over the coast of Spain; (2) also a land breeze over the Atlantic and Pacific coasts of South America; (3) a nighttime mountain wind in Chile [9, 17, 25, 27, 36].

Terral levante -- (1) a land breeze in Spain and Brazil; (2) the rarely used term for föhn squalls blowing out of the northwest [2, 8].

Terre altos -- descending squall-type winds out of the northwest in the environs of Rio de Janeiro [2, 8, 9, 17, 25, 26].

Terrenho -- a cold and dry land breeze in India; also: tereno [2, 8].

Teuchit (see peesweep storm)

Texas norther (see norther)

Thalwind [Ger. "valley wind"] -- a pleasant valley wind in Germany [7].

Thriaskias -- Old Greek term for northwesterly winds blowing out of Thrace over the Aegean Sea; generally: Wardarak [25].

Tiempo del monte -- a term for the northeasterly tradewinds on the leeward side of the Canary Islands, having the character of a föhn wind [25, 27].

Tiempo del sur -- a southerly wind with varying force in the Canary Islands [27].

Tieplak [general Slav. "hot, hot one"] (see południk)

Tieplyj wietier -- Russ. "warm wind"; a warm east-southeasterly wind arising sometimes in the river basin of the Kolyma River in the winter, when it may be accompanied by an increase in temperature from -44 to 2°C, lasting about one 24-hour period [27].

Tivano -- a nighttime, mountain wind blowing over Lake Como in northern Italy; the valley wind is called breva [2, 9, 17, 18, 25, 26, 27, 36].

Tofan -- a strong springtime wind in the mountains of Indonesia; also: tu fan, tufon [8].

Tołkacz [Russ. "pusher, shover"] -- a northwesterly wind over Baikal; also: tołkun [32].

Tołkun (see tołkacz)

Tongara (see tongara putih)

Tongara putih -- a southeasterly "white wind," blowing at the end of the dry season (the end of the southeasterly monsoon in the period June-August) in the Gaspar Strait and the Karimata Strait between Sumatra and Borneo; it is sometimes accompanied by a very heavy fog; this wind arises also near Timor over the Arafura Sea, where it has the name kuma-kuma; otherwise: tongara, white south-easter [8, 25].

Tormenta -- strong summer winds out of northeasterly to westerly directions that are accompanied by storms in the Gulf of Taranto [35].

Tornado -- Span. "tronada" ["storm"]; (1) the WMO definition: "Term given to intense whirlwinds with large diameters in North America"; storms give rise to the formation of whirlwinds or tornadoes with spiral circulations and a drawing action directed upward (it is the opposite case in tropical cyclones); a tornado has a

diameter greater than 1 km, moves with a velocity of 45-130 m/sec, arising frequently near cold fronts, but at a fair distance in front of them; it is felt that there is a strong connection between tornadoes and tropical cyclones; J. S. Smith calls them "hurricane-tornadoes," A. D. Pearson and A. F. Sadowski call them "hurricane-induced tornadoes"; the unique origin of the tornado has not yet been fully explained; tornadoes may bring about catastrophic destruction, but only over a small area; their appearance is connected with dark storm clouds of a disordered form, out of which a dark funnel emerges directed toward the ground; when it reaches the surface of the earth, it tears up great clouds of dust, sucks water out of wells, and destroys trees and houses; accompanied by torrential rain, hail, and atmospheric discharges; it is most often called tornado over the area of North America and over the north coast of the Gulf of Mexico; it particularly often appears during the spring and autumn in the hours around noontime, and it may appear over the course of the whole year at any time of the day; a tornado moves with great velocity from the land to the sea, where it quickly dies out; (2) the WMO definition: "Term applied improperly to strong storm squalls in western and equatorial Africa..." and in the adjacent Atlantic waters; they always appear at the end of March and the beginning of April or in October, during the transitional season between the monsoon and the harmattan they are also called: West African tornadoes [8, 9, 10, 18, 25, 26, 27].

Tornado belt -- the term for the region where tornadoes most frequently occur, in the lowlands above the central and upper Mississippi, Ohio, and the lower part of the Missouri Valley [8].

Tosca -- a southwesterly wind over Lake Garda in northern Italy [2, 8].

Toureillo -- a dry southerly wind in Ariege, that blows mainly during February-March and August-September [25, 28].

Trade wind -- (1) English term for pasat; (2) the term for the prevailing westerly winds in California and the northwesterly winds blowing during the summer in the State of Oregon [25].

Traersú -- a strong easterly wind in the vicinity of the town of Manerba and Moniga over Lake Garda in northern Italy [8, 25].

Tramonta -- a warm and dry föhn wind blowing out of the west and southwest onto the northern slopes of the Pyrenees; also called: albé, vent d'Espagne [4, 25].

Tramontana -- Ital. "wind from behind the mountains"; (1) a cold northerly or northeasterly wind observed during the winter in northern and western Italy, Corsica, Sardinia, and in the Balearics; it brings with it cloudless weather and a refreshing breeze; the tramontana has an origin similar to the mistral, arising when there is a low located over the Adriatic, the Padua Lowlands, and the Gulf of Genoa, and a high is developing over the Alps or Western Europe; it blows with moderate velocities; the tramontana arises generally at the same time as the bora over the Adriatic; also: montagneuse; (2) a northerly wind in Bulgaria [2, 7, 8, 9, 15, 17, 18, 20, 25, 26, 27, 29, 35, 36].

Tramontane -- (1) the term for the mistral on the French-Spanish border; (2) a northerly bisa in Bourg-Saint-Andréol in the Dept. Ardèche; accompanied by cold but good weather; (3) a term for the montagnère wind over the Côte d'Azur and in Provence; (4) a breeze out of the northerly direction in the vicinity of Nice, also called: vente subrau [8, 28, 29].

Tramontane roussillonnaise (see Narbonés)

Tramuntana -- a term for northerly and northwesterly winds with the character of a mistral over the Gulf of Lyon [25].

Traubenkocher -- term for the föhn in the northern Alps [17, 25, 26].

Traverse -- a westerly squall wind in central France, which is warm and humid during the spring and summer, but in the winter it is cold and just as humid; in Auvergne, where it brings continuous precipitation, it is called the grand vent or the plouzaou; in the southern part of the Central Massif, winds blowing out of the southwest are called traverse basse, and the traverse haute for winds blowing out of the northwest; in the Dept. Cantal, they are called plouzaou, ploudzaou [2, 8, 25, 28].

Traverse basse (see traverse)

Traverse de Villefranche -- a southwesterly wind (out of Villefranche-sur-Saône) in the northern part of Dombes and in the Bresse depression; they precede rain precipitation [28].

Traverse haute (see traverse)

Traversia -- term for westerly winds (off of the sea) in South America, especially in Chile [2, 8].

Traversier -- hazardous winds over the Mediterranean Sea, especially in ports [2, 8].

Travestas -- westerly or northwesterly winds blowing off of the Pacific onto the western coastline of South or Central America, especially in Patagonia [25].

Trąba -- term for whirlwind winds with restricted diamtters; trąby (wiry) and powietrzna, trąby wodne, trąby (wiry) pyłowe; also: tromba.

Tromba -- a whirlwind on Malta; also generally: trąba [8, 25].

Tropaia -- Gr. "trepeio" ["to turn around backwards and forwards"]; Old Greek term for sea winds (breezes); the generally used term is emvatis [25].

Tsiknias -- frequent bursts of wind over the southern slopes of the islands of the Aegean Sea during the period of the etezia; the term comes from the Island of Tinos [25].

Tu fan (see tofan)

Tufan (see tajfun ["typhoon"])

Tufon (see tofan)

Tuman [Russ. and Pol. "cloud, mist" (see wir powietrzny ["tornado, whirlwind"])]

Turbonada -- Span. "turbionada" ["storm"]; (1) a warm northeasterly wind in

Brazil; (2) short-lived storm squalls over the Spanish coast, sometimes with water spouts; also: turbonadas [2, 9, 17, 18, 25, 27].

Turbonadas (see turbonada)

Turbonado -- a westerly wind over the eastern coast of South America [26].

Turbonados -- short-lived storm gusts of wind in the vicinity of La Plata with the advection of cold air out of southerly to westerly directions [25].

Türkenwind [Ger. "Turk's wind"] -- term for a föhn in the northern Tyrols, hastening the ripening of corn, which is called here "Turkish grain," from which the term "Turkish, Turk's wind" comes [9, 25, 26].

Turnu Roşu -- a southerly wind similar to the föhn over the Transylvanian Highland, blowing out of the southern Carpathians across the Red Tower Pass (Turnu Roşu, "Rotenturm" in German, "Red Tower"); in the environs of Ort Nagy-Talmacs near Herman, it has the name Talmacs (?); the German term is: Talmescher Wind [2, 9, 25, 26].

Twister -- American colloquial term for tornado [8].

Tyfon (see tajfun ["typhoon"])

Typhon (see tajfun)

Typhoon -- the WMO definition: "Term given to tropical cyclones in the China Sea and, generally, over the northwest Pacific"; generally also: tajfun [10].

U

Uachdž -- a term for dust storms in the central Sahara, given in Russian transcription [16].

Uala-andhi (see kal-baishakhi)

Ułam (see Boam)

Ungarischer Wind -- Ger. "Hungarian wind"; a hot and dry easterly wind blowing off the Hungarian Steppes into eastern Austria [17, 25].

Unterwind -- a valley wind over the Salzkammergut Lake in Austria; the opposite term is: Oberwind [8, 17, 25, 26].

Uracan (see hurricane)

Uracano (see hurricane)

Uragan (see huragan)

Ursatjewskij wietier -- this wind has an origin similar to the ibe (Ebe); it is the result of the influence of topography on the general atmospheric circulation, in general cold and strong, blowing out of the east with great regularity (94%) in the Syr-Darii Valley, between the Fergansky Valley and the Kyzyl-kum Desert, particularly strong in the vicinity of Ursatjewskaja, comprising the area to the south of Obrucheva and to the north of Murzaczula; over the period of one year, it is recorded for 72 days with a strong wind, most frequently blowing during January; it attains velocities of 40 m/sec, it has been recorded for 22% of the winds at velocities greater than 20 m/sec, attaining across the vertical altitudes of 300 m, sometimes extending to 1,000-1,500 m, at which time quiet and warm weather is the rule in higher mountainous regions [4, 16, 20].

Urycan (see hurricane)

Usummeltém (see meltém)

Vaguio (see Baguio)

Val Froide -- a warm and southerly wind accompanied by cloudy weather in Saint-Jean-d'Arves in Sabaudia; most frequently blows during the spring and autumn [28].

Valais vent -- normally, this is a strong and regular valley wind blowing in the Valley of the Rhône, especially from the eastern end of Lake Geneva (Canton Valais); also: Walliser Talwind [2, 8, 9, 17, 25].

Vallonet -- a northeasterly wind blowing through the Ubayette Valley in Meyronnes in the Dept. Basses-Alpes in France [28].

Vanoise -- a northeasterly bisa blowing in Pralognan in Sabaudia, crossing the Vanoise massif and blowing in Lanslebourg in Sabaudia [28].

Vardar (see Wardarak)

Vardar Wind (see Wardarak)

Vardarac (see Wardarak)

Variable -- a term for light and very changeable winds in the western and eastern parts of the equatorial Pacific; less frequent in the central part, where the area of the convergence of tradewinds from both hemispheres is pronounced [9, 25].

Vario (see Baguio)

Vars -- a term for the bisa in Saint-Paul-sur-Ubaya in the Dept. Basses-Alpes in France [28].

Vaudaire -- northeasterly föhn winds blowing from the direction of the Canton Vaud (Waadt) above Lake Geneva; also: Vauderon, Vaudire [2, 8, 9, 17, 25, 26].

Vauderon (see Vaudaire)

Vaudire (see Vaudaire)

Veindoess -- a westerly wind (out of Vein) in Picardy in France, mild and humid, sometimes with storms [28].

Vendaval -- a wind from off the sea; a southwesterly wind, strong and stormy in the Alboran Channel between Spain and the Balearic Islands or in the Strait of Gibraltar, connected with lows moving out of the west in the period from the end of the autumn to the beginning of spring, accompanied by storms; also: vendavales [2, 8].

Vendavales -- Span. "wind blowing out of the mouth of a river"; strong southwesterly winds in Portugal, carrying precipitation and lasting usually 2-3 days, after which there arrives a northerly wind with cloudy weather; its occurrence is connected with lows moving to the east; similar winds over the eastern coastline are called vendaval; also: vendevalles [1, 7, 15, 17, 18, 25, 26, 27, 35, 36].

Vendevalles (see vendavales)

Vent au brûlant (see vent d'aval)

Vent au sec -- a dry and cold easterly wind in the Normandy Highlands; generally also: vent d'en bas [28].

Vent blanc -- Fr. "white wind"; (1) a cold and dry wind with good weather, out of the southwest in Besançon, Villard-de-Lans in the Dept. Isère, out of the south in Rousses in the Jura, in Saint Laurent in Upper Sabaudia, in Ormon in the Dept. Isère, and in Motte-d'Aveillans in the Dept Isère; and out of the southeast in Gigny in the Jura; (2) a term for a very rare easterly wind in the region of Gourdon in Lotaryngia [28].

Vent d'amont -- Fr. "wind blowing from up-river, wind from off the land"; (1) an easterly land breeze blowing over the French Atlantic coast, also with the name: amont; (2) a land breeze on the French Atlantic coast; (3) a northerly wind in the region of the Normandie Highlands (called vent d'en haut) and in Cantal

(also: bise); (4) a northeasterly wind in Boullonnais [9, 17, 25, 27, 28].

Vent d'Ardennes -- a southeasterly wind (out of the Ardennes) in Flanders, and northerly in many places of southeastern France [28].

Vent da Mut -- a strong and humid wind over Lake Garda in northern Italy [2, 8].

Vent d'aval -- Fr. "wind blowing out of a river mouth, from off the sea"; (1) a westerly wind over the French Atlantic coast; also: vent au brûlant, vent de bas; generally: vent de mer; (2) a strong and rainy southwesterly and southerly wind in the region of the Normandie hill country [9, 17, 25, 26, 27, 28].

Vent de Bali (see Bali)

Vent de bas -- a westerly wind in Deux-Sèvres, southerly in Corrèze, where it is also called choillère; out of the southwest and south in the region of the Normandie hill country (also: vent d'aval); this wind is warm and humid, accompanied, especially in the spring and summer, by rain clouds at great altitudes [28].

Vent de Bayonne -- a southwesterly wind (out of Bayonne) in Gers, westerly in Ariège, blowing throughout the whole year with moderate force, carrying precipitation; in the summer it has a refreshing character, and in the winter it has a warming effect [28].

Vent de Bordeaux -- a northwesterly wind (from Bordeaux) in Gers in France [28].

Vent de Céveno -- an east-southeasterly wind in Rouergue; the name means "wind from the Sevelnes" (Fr. Cévennes) [28].

Vent de France -- Fr. "wind from France"; (1) a southerly wind in Flanders; (2) a name for the bise blowing from Oise [28].

Vent de Grenoble -- Fr. "wind from Grenoble"; a southerly wind blowing out of the valleys of Sabaudia [28].

Vent de la pluie -- a westerly wind in Gers, in northeastern France, in Quercy

(where it is called: pluvial, plutzel), and in the Orne Valley in the Dept. Moselle (vent d'en haut) [28].

Vent de la Pousée -- a southeasterly wind over the Beaujolais Lowland and in the environs of Lyon; this is a wind of the white wind type (vent blanc), which during the spring contributes to the growth of the leaves on the trees for a period of 48 hours [28].

Vent de la vallée d'Azergue -- a south-southeasterly wind in the region to the south of Villefranche-sur-Saône, preceding by 24 hours a southerly wind, which blows at the highest altitudes; it does not bring immediate precipitation [28].

Vent de Langres -- a term for the traverse wind in Besançon, which blows from the direction of Langres [28].

Vent de Lisieux (see Auvergnasse)

Vent de mer [Fr. "sea wind"] -- a wind blowing from the regions of Loara out of the westerly sector, sometimes out of the southwest, meaning "wind from the sea"; this term is used interchangeably with vent d'aval [28].

Vent de Montluel -- this is the so-called "white wind" (vent blanc), that blows along the borders between the Dept. Dombes and Brasse, oscillating between a southerly direction and a southeasterly direction; the greater it is deflected to the southeast, the hotter and drier it is, blowing in gusts, the sky is cloudless with a milk-white tint; it is a wind that is less violent than the vent du Midi, characterized by a slight weakening during the night, which contributes to the formation of high temperatures during the night, and in the same way, to an increase in its dryness; this term comes from the locale of Montluel in the Dept. Ain [28].

Vent d'en bas -- (1) a westerly wind in the Orne Valley in the Dept. Moselle and on the Woëvre coast, cold and dry; also: vent au sec; (2) a southwesterly wind blowing into Artois, moderately strong and humid [28].

Vent d'en haut -- (1) a northeasterly wind in Artois, generally cold and dry; (2) an easterly wind in the region of the Normandie hill country (also: vent d'amont);

(3) an easterly wind over the Corrèze Islands (also: vent noir); (4) an easterly wind in the Orne Valley in the Dept. Mozela and on the Woëvre coast (also: vent de la pluie) ["rain wind"] [28].

Vent de pluie [Fr. "rain wind"] -- a southerly wind in Uriage in the Dept. Isère, humid, bringing rain precipitation; also generally: plutzel [28].

Vent de rafale (see rafales)

Vent de retour -- with the strong, northeasterly tradewind on the leeward slopes of the Grand Canary (in the Canary Islands), there blows a light breeze from out of the southeast at ground level, after which the vent de retour begins to blow, which is a deflected tradewind [25].

Vent des dames [Fr. "ladies wind"] -- a term for a sea breeze blowing out of the southwest during the summer (from May to the end of August) on the Mediterranean Sea coast and on the coast to the north of the Rhône delta; it usually begins around 1000 hours, reaching a maximum around 1400 hours, and finishing about 1800-1900 hours, extending for 30 km inland, blowing with velocities of 6-8 m/sec on the Crou coast, where due to superheating it reaches velocities of 10-12 m/sec; also: lisséro [2, 28].

Vent de souleu -- a term for mild easterly winds in Provence [28].

Vent d'Espagne (see albé, tramonta)

Vent d'Italie -- Fr. "wind out of Italy"; a northeasterly wind blowing along the French-Italian border [28].

Vent du bas -- a southwesterly wind in Gigny in the Jura bringing rain precipitation [28].

Vent du haut -- an easterly wind in Gigny in the Jura, preceding a period of good and dry weather during the summer [28].

Vent du Midi -- a warm and humid southerly wind in the Central Massif and in

southern Cévennes, preceding a southwesterly wind with rainstorms [2, 25, 26, 28].

Vent du soleil [Fr. "sun wind," "solar wind"] -- a solar wind in the area of Buis-les-Baronnies in the Dept. Drôme; blowing during the summer during the dry period [28].

Vent froirin -- a southerly wind in Boulonnais in France [28].

Vent Lorrain -- an easterly wind (out of Lotaryngia, Fr. "Lorraine") in the area of Oise in France; also: vent Prussien ["Prussian wind"] [28].

Vent marin -- a term for the bisa on the Toulon coast [28].

Vent mou (see auro basso)

Vent nègre -- Fr. "black wind"; wind blowing out of southwesterly to north-easterly directions, bringing precipitation into Rouergue [28].

Vent nègret -- a northerly wind in Quercy in France; also: vent noir [28].

Vent noir [Fr. "black wind"] -- (1) a northerly wind in the environs of Quercy and Corrèze; (2) a northwesterly wind in Cantal (also called: vent nègret), cold and dry with stratocumulus opacus clouds [28].

Vent Prussien (see vent Lorrain)

Vent sous le soleil -- term for a solar wind in Maine and Perche in France [28].

Vente subran -- a land breeze in the vicinity of Nice [28].

Vento de cima -- a cold westerly wind over the Upper Amazon, which is usually accompanied by rain precipitation [25].

Vento di sotto -- breezes blowing upwards into Lake Garda in northern Italy [2, 8].

Ventos gerais -- a weak easterly wind blowing in the interior of Brazil during the summer dry season [25].

Ventoureso -- a Provence term for a northeasterly wind blowing out of the mountains of Ventoux in Provence [28].

Ventoux -- southeasterly wind in the vicinity of Montélimar, an extension of the Lombard wind, the term coming from the Ventoux Mountains [28].

Vents alizés -- French term for tradewinds.

Vents d'autan (see autan)

Ventus hellesponticus (see hellespontias)

Ventus hellisponticus (see hellespontias)

Verne -- a southwesterly wind in the environs of Lengres in France [28].

Vesine -- a daily wind blowing up-valley in the Dept. Drôme in France [8].

Viehtauer Wind -- a nighttime, mountain wind descending from the Höllen Mountains through the Traun Valley and across Lake Traun; this term comes from the locale of Viehtau in Upper Austria [9, 25].

Viento roterio (see rodada)

Viento zonda (see zonda)

Villards -- a cold westerly wind in Saint-Marie-de-Cuines in Sabaudia, occasioning rain and snow precipitation [28].

Vindträta -- Swed. "dispute of the winds"; a region of calm on the sea between a wind blowing from off the sea and a land wind, on the eastern coast of Sweden [9, 17, 25, 26].

Vinessa (see vinezza)

Vinezza -- a southerly wind over the southern part of Lake Garda in northern Italy; at the same time, in the northern part of the lake, the most powerful wind, the ora, is blowing; also: vinessa [25].

Vingtaines -- a term for cold winds, harmful for plants and fruit, blowing during April and May in Perche in France [28].

Vintschgauer -- a nighttime, mountain wind blowing out of the south in the Öts Valley in the Tyrols; this wind blows from the direction of the town of Vintschgau; also: Vintschger [9, 25].

Vintschger (see Vintschgauer)

Viracao (see virazon)

Viraysse -- a northwesterly wind blowing through the Ubayette Valley in Larche in the Dept. Basses-Alpes in France [28].

Virazon -- Port. "viraçao" ["a fresh, sea wind"]; (1) a term for a sea wind at the mouth of the Congo; (2) a sea breeze over the Spanish and Portuguese coasts; (3) a very strong sea breeze out of southwesterly directions over the Pacific coast of South America. It usually begins around 0900, attaining its maximum around 1500, and lasting until sunset; an opposite land wind is called terral; (4) a sea breeze on the southern coast of Brazil; also: birazon, viraçao [2, 7, 8, 12, 18, 25, 26, 27].

Virazon -- alternately blowing sea and land breezes on the Spanish and Portuguese coasts [2, 8, 26].

Visentina -- strong easterly winds over Lake Garda in northern Italy [2, 8].

Vogel Winde [Ger. "bird winds"] (see ornithiai)

Vorias -- a recent term for the ancient boreas wind; winter, cold, and humid northerly winds over the area of the Aegean Sea [25].

Vosges -- an easterly wind in the vicinity of Nancy, blowing from the direction of Vosges [28].

Vriajem (see friagem)

Vriajems -- the advection of cold air during the dry season in Brazil; also: friagem, suraçon [9, 17, 25, 26].

Vstok (see Novaya Zemlya bora)

Vulturnus -- an easterly or southeasterly wind blowing from the direction of Mount Vultus (Monte Vulture); others derive the term from the Latin "vellere" ["pull, tear, pluck, tear off"]; this term was used in ancient Rome [25, 26].

Vuthan -- an intense storm in Patagonia and the southern portion of South America [2, 8].

W

Waff -- a weak, pleasant breeze in Scotland, similar to cat's paw [7].

Walliser Talwind (see Valais vent)

Wam-andai -- a strong westerly wind in eastern New Guinea during the time of the northwestern monsoon [25].

Wambra -- a descending wind to the north of New Guinea [9, 17, 26].

Wambraw -- a warm and dry wind descending into the Gulf of Serera (Geelvink) in northwestern New Guinea during the period of the southeasterly monsoon; also: wambru [4, 25].

Wambru (see wambraw)

Wardarak -- a northwesterly wind blowing along the Wardaru Valley into the Gulf of Salonika in Greece; generally it is cold and dry, arising more frequently during winter, when a barometric high is being maintained over the Balkans, and the pressure over the Aegean Sea is significantly lower; in the Skopje Basin in Yugoslavia, a sink of cold air is formed which subsequently moves to the southeast. Under similar conditions, the wind blows through the Struma Valley into the Orfany Gulf, called the Struma wind; the wardarak as well as the struma, with regard to their origins, are similar to a bora, mistral, and the tramontana; it lasts 2-3 days, blows with velocities of 5-7 m/sec, and gusts up to even 15 m/sec; it blows also during the summer, when it is possible that it is a component of the etezja guided by the valleys; winds descending into the Gulf of Salonika are also called chortiatis; also: Vardar, Vardar Wind, Vardarac, Wardarec [2, 4, 7, 8, 17, 23, 25, 26, 33, 36].

Wardarec (see Wardarak)

Warm brow -- a warm and dry föhn wind blowing out of the north for 4-8 days on the leeward slope of the Schouten Islands (to the northwest of New Guinea) during the period of the southwesterly monsoon; air passes across the Nassau and Orange

Mountain chains, whose peaks reach 4,800 m, and then as it drops a great amount of moisture onto the windward slopes, it descends onto the leeward, northern slopes as a dry and warm wind [7, 8, 15].

Wasatch wind -- a strong easterly valley wind blowing at the mouth of the Wasatch Valley in the State of Utah in the United States; this wind arises when an extensive high develops over the State of Wyoming, and there is an active low over Utah or Arizona; in this same canyon, the wind, as a result of a jet-wind effect, reaches hurricane force, especially during the winter season [2, 8, 16, 25].

Washoe zephyr -- a term for the Chinook in the Sierra Nevada in California [2, 8].

Waterspout (see whirlwind)

W wozowy wiatr [Pol. "canyon wind"] (see kanionowy wiatr ["canyon wind"])

Weisse Boën -- Ger. "white squalls"; sudden gusts of wind of a squall type with a cloudless sky over the open sea in the tropical and subtropical zones; they are similar to waterspouts, causing foaming waves on the ocean, and it is from this that the term is derived [25, 27].

West African tornadoes (see harmatan, tornado)

Westerlies -- (1) the prevailing motion of air out of the west to the east, whose main axis runs above the middle geographical latitudes of each hemisphere; at the Earth's surface, this comprises a band from 35 to 65°, but at higher altitudes it reaches closer to polar and equatorial latitudes; (2) also winds with a westerly component [25].

West Indian hurrican (see hurricane)

Whirlies -- a term given by Douglas Mawson to strong whirlwinds or tornadoes carrying snow; these whirlwinds have diameters of 37 to 97 m, appear on the slopes of Terre Adélie (Adele and) in the Antarctic during the equinox period; it may carry small pieces of ice up to altitudes of 60-130 m, and over the sea, columns of water

drops with heights of 1,200 m are formed; also: whirly [7].

Whirlwind -- a general English term for small-scale whirling air columns; other definitions are: dust whirl, dust devil, tornado, waterspout; Polish terms are: trąba powietrzna, wir powietrzny, wir pyłowy.

Whirly (see whirlies)

White buran (see buran)

White south-easter (see tongara putih)

White squalls (see Weisse Boën)

Wiatr giabłowy (see wir powietrzny ["tornado, whirlwind"])

Wiatr kołowy (see wir powietrzny)

Wiatr kręcony (see wir powietrzny)

Wiatr młynkowy (see wir powietrzny)

Wiatr niedobry (see wir powietrzny)

Wiatr paskudny [Pol. "filthy wind"] (see wir powietrzny)

Wiatr suchy [Pol. "dry wind"] (see wir powietrzny)

Wiatr dolinny [Pol. "valley wind"] (see bryza dolinna ["valley breeze"])

Wiatr efektu tunelowego -- Eng. "jet-effect wind"; a wind whose velocity increases by the "tunneling" of air through passes, canyons, narrow valleys, for instance the Tehuantepecer, Koszawa, Wasath wind, Ebe, ursatjewski wind, ryterski wiatr, and others.

Wiatr etezyjski (see etezja)

Wiatr górski [Pol. "mountain wind"] (see bryza górską ["mountain breeze"])

Wiatr halny -- Pol. "wind out of deep, narrow valleys or ravines," Czech "holý," "bare, naked," thus a wind out of mountain misery or nakedness; the term for the föhn in the Polish Tatras and in lower Galicia; often appearing during the spring, and in the winter giving rise to the melting of snow and flooding; also: halniak, halny; English "alm wind" [2, 4, 15, 18, 27, 36].

Wiatr jaskiniowy -- a term for winds blowing out of caves or caverns (Pol. "jaskinia" ["cave," "cavern"]); if the air in a cave is considerably colder than outside, which is observed in the summer and during the day, the wind blows from out of the cave, attaining significant velocities when the air is pulled out through a small opening [4].

Wiatr jugowy -- the colloquial term for a winter wind blowing from out of the south and giving rise to thawing, used in the southern part of Malopolska (Small Poland); it is probably the same as the term for wiatr halny; also: wiatr juhowy, juktowy, juzny, ulgowy, zmiękowy [13].

Wiatr juhowy (see wiatr jogowy)

Wiatr juktowy (see wiatr jugowy)

Wiatr juzny (see wiatr jugowy)

Wiatr lawinowy -- Eng. "avalanche wind"; the WMO definition: "A surge of air caused by a snow avalanche or a rock fall"; its force may be equal to the force of a cyclone; the destruction caused by this kind of wind is considerably greater than that caused within the reach of the avalanche itself [8, 10, 27].

Wiatr lodowcowy [Pol. "glacier wind"] -- a wind arising under the influence of a temperature difference between the air and the surface of a glacier; during the course of a day, two main periods for the increase in wind velocity are noted, before sunrise and after sunset; its cooling effect may sometimes reach up to altitudes of 300-400 m, the greatest wind velocities are observed at altitudes of about 2 m above the glacier; also: Firn Wind, glacier wind, glacier breeze, Gletscher

Wind [9, 10, 18, 25].

Wiatr miejscowy [Pol. "local wind"] -- the WMO definition: "(1) a wind which blows over restricted areas and is caused by local factors; (2) a wind which assumes at times local characteristics as a result of local factors"; F. Defant in his Local Winds suggested the following classification for local winds: (1) the result of local topography, which reinforces general geostrophic flow, jet-effect winds, winds passing through mountain passes, canyons, such as the Tehuantepecer, Koszawa, Ebe, and others; (2) opposing or contrary winds: sea and land breezes, valley and mountain winds, katabatic winds whose occurrence is caused by the general pressure distribution, such as föhns, boras; (3) irregular winds, caused by local heating or the advection of cold air, such as sand storms; (4) winds in accordance with the general pressure gradient distribution or with the regular flow over a plane surface or in accordance with both these kinds of factors; these are winds that are accompanied by additional characteristics of sand, dust, snow, water drop transport, such as the chamsyn, sirocco, blizzard, buran, purga; the terms for local winds are of different provenience, either directly from their directions: northe, norte, southeaster, leste, or else derived from the areas out of which they blow: Chinook, pampero, Narbonnais, halny; they may also be derived from physical properties of the wind: brickfielder, Schneefresser [8, 10].

Wiatr miejski [Pol. "city wind"] (see bryza miejska ["city breeze"])

Wiatr pól (see bryza miejska)

Wiatr przedmieść [Pol. "suburbs wind"] (see bryza miejska)

Wiatr przełęczowy [Pol. "pass wind"] -- this is the result of a daily, valley wind blowing upwards into a valley to the height of a ridge and then through a pass, where its velocity increases, and then as it falls onto the other side of the ridge into the opposite valleys, it creates an anomalous wind.

Wiatr stu dwudziestu dni [Pol. "120-day wind"] (see Afganiec)

Wiatr stu dwudziestu dwu dni [Pol. "122-day wind"] -- term for a northerly wind in eastern Iran [26].

Wiatr stokowy [Pol. "slope wind"] -- term for one of the katabatic winds; air falls under the influence of the force of gravity along a quite flat sloping slope; considered to be among them are glacier winds and the winds blowing from the interior of Antarctica towards the coastlines.

Wiatr ulgowy (see wiatr jugowy)

Wiatr z Italii [Pol. "wind out of Italy"] (see Lombarde)

Wiatr zboczowy -- a wind of smaller scale than the typical valley and mountain winds (winds that arise as a result of air exchange between valleys and mountains), restricted to the slopes themselves, rising during the day and falling during the night.

Wiatr zmiękowy (see wiatr jugowy)

Wiatr zstępujący [Pol. "descending wind"] -- signifying generally a strong and cold wind, differing from a föhn in that the air at the initial moment is so cold that even after adiabatic heating, it would be colder than the region into which it is descending; it is a phenomenon on a greater scale than a gravitational wind, as it is usually defined; for a descending wind, an accumulation of cold air is necessary over a great region; these kinds of winds are observed on the Norwegian coast, where they blow out of the east reducing the area of good weather along the coast; they are observed to the north of the Aegean Sea, on the southeastern periphery of the Athos Peninsula, where the northern winds are blocked by the Athos massif, rising to over 2,000 m above sea level and falling steeply into the sea; they then change direction to the northeast, and under the term Athos fall wind, they flow down to the sea with storm force and are felt on the sea at distances of several kilometers; on the Peruvian coast, this term is used for sudden storms descending onto the coast after a land breeze; in Rio de Janeiro, descending winds are called terre altos; examples of descending winds are: bora, mistral, Papagayo, Wardarak, Struma, Polak, and others [8].

Wiatrak [Pol. "windmill"] (see wir powietrzny ["tornado, whirlwind"])

Wicherek [Pol. "little wind"] (see wir powietrzny)

Wichor (see huragan, wir powietrzny ["tornado, whirlwind"])

Wichur (see huragan, wir powietrzny)

Wichura (see huragan, wir powietrzny)

Wiechur (see wir powietrzny)

Wielki szamal [Pol. "big, great szamal"] (see szamal)

Wielki wiatr [Pol. "big, great wind"] (see Grosser Wind)

Wierchowik -- a northeasterly katabatic wind, blowing during all the seasons of the year, but especially during autumn, off of mountain peaks toward the center of Lake Baikal [4, 22, 32].

Wierchowka [Russ. "verkhovka"] -- (1) a Russian term for a mountain wind;
(2) a föhn wind blowing over Lake Teleckoye in the Soviet Union [4, 20].

Wiaternica (see wir powietrzny ["tornado, whirlwind"])

Wietrunek (see wir powietrzny)

Wietrznica (see wir powietrzny)

Wietrzyca (see wir powietrzny)

Williem (see williwaw)

Williema (see williwaw)

Willie-wa (see williwaw)

Williwau (see williwaw)

Williwaw -- a very strong squall wind of the bora type in the Strait of

Magellan, arising particularly in the western part of it; it is observed the whole year round, but more often during the winter; also: rachas, williem, williema, willie-wa, williwau, williwaws, willy-waa, willywaw [1, 2, 7, 8, 18, 25, 26, 36].

Williwaws (see williwaw)

Willy-waa (see williwaw)

Willywaw (see williwaw)

Willy-waws -- (1) the general English term for katabatic winds (gravity winds, fall winds, glacier winds); (2) a sudden, very strong squall wind in the Aleutian Mountains in North America [15].

Willy-willies -- a term for tropical whirlwinds on the islands of the Malaysian Archipelago, the Philippines, and in the northwestern part of Australia, occurring mainly in the period from November to March, accompanied by copious rain precipitation, even up to 900 mm over the course of a 24-hour period; the term is derived from "whirl wind," "wir pyłowy," and the term: willy-willy is also used [2, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Willy-willy (see willy-willies)

Wir (see wir powietrzny ["tornado, whirlwind"])

Wir powietrzny ["tornado, whirlwind"] -- a term for whirling winds of small diameter, the Polish colloquial terms which include usually small-scale winds as well as whirlwinds and tornadoes: furagan, huragan, wichura, wir, złe, zły, zły duch ["evil spirit"]; in Kashubia: Jurek, Jurk, kozéłk, krack, kruck, purtków, ęgun, purtków Michôł, srél, sréla, swider, zajc; in the Kociewski district: kręcik; in Lubelszczyzna: kominek, krętaacz, krętawica, paskudnik, słup, szaraniec, świni, wichur, świński wicher, wiater paskudny, wichur, zawichor, zawichur; in Łeczyck: popętany Jasiu; in Malopolska: głupi Jaś, hamera, kręciaty witer, lej, południca, powietrze (in the southern part), srala Jasiu, sraldek, wiater giabłowy (in the eastern part), wiater młynkowaty, wietrunek (in the northern part), wietrznica and wietrzyca (to the north), wira; in Mazowia: diabelski młynek, kołowrót, koziółek,

kurzawa, kusy Jasio, wiatr kręcony, wiatr niedobry, wiatrak; in Podlasia: niedobry waitr, świniaczy ogon, świński bobek, świński glut; in Pomerania: kręciuch, kręty wiatr, świnianka; in Sieradzek: kusy Bartek, wicherek, zawieja; in Silesia: czart, niedobre powietrze, wyrbel, wyrbelwind, zawierucha; in Wielkopolska (Great Poland): ciota, czarcie ajno, czarny Jasiu, Jasiek, Jasio, kołomet, paskud, świńskie gównno, zakręt; in western and northern Poland: wiatr suchy, wiechur, zawir; Bartek in Kielecczyźnia and in Sieradzek; czarcie gównno in Pomerania and Podlasia; diabelski młyn in the region of Łęczyca and in Mazowia; diabelskie (diable) wesele in Mazowia and in the region of Lubelska; diabeł in Wielkopolska, in Silesia, and in Malopolska; głupi Jasio in northern Malopolska and in Mazowia; kręciek on the right bank of the Mazoviesz River, in Chełmińsko-Dobrzyński Land, and in the Kociewie region; kręciołek and krizel in Warmie and Mazuria; krizel wind in Wielkopolska and in Pomerania; młynek in Silesia and in Malopolska; południak in Mazowiecki and in Malopolska; powicher in Lower Galicia and in the southern part of Silesia; srala and srala Bartek in Kielecczyźnia and in Sieradzko; śvinie gównno in Pomerania, Warmie, and Masuria; trąba on the border of Wielkopolska and Kujav, in Sieradzko, Łęczycko, the southeastern part of Malopolska, Suwalsko, the Western Lands and the Northern Lands; tuman in Mazowiecki and in Malopolska; wicher in Podlasie, in southeastern Lubelszczyźnia, and in Silesia; wichor in Lubelszczyźnia and in western and northern Poland [13].

Wir pyłowy -- Eng. "dust whirl"; a rapidly turning column of air (wir wiatrowy) over dry, sandy, and dusty areas, carrying dust, sand, leaves, and other light transportable material up off the ground; it is the result of a very strong convection in the hot and dry south; this whirlwind looks like two cones connected at their points and having a diameter of basically several meters, its height is variable, attaining on the average 30-100 m, and in hot deserts may even be as high as 600 m; other terms: dancing dervish in the deserts of the Near and Middle East, dancing devil, devil, satan, shaitan in Beludzhistan [Translator's Note: eastern Iran, western Afghanistan, and present-day Pakistan], sand auger, sand devil in India; desert devil, dust whirl, rotating column; a very well-developed dust whirl (wir py owy) is called a dust devil [1, 2, 8, 9, 15, 18, 27].

Wira (see wir powietrzny ["tornado, whirlwind"])

Wirbelszturm (see huragan)

Wisper -- a nighttime, well developed mountain wind blowing out of the east in the western part of the Taunus Mountains down the Wisper Valley into the valley of the middle Rhine in Germany; this wind carries wind that is colder by 10°C into the valley [2, 7, 25, 26, 27].

Wjuga -- a cold northerly or northeasterly wind blowing usually for 3 days in the steppes of the European portion of the Soviet Union [8, 25].

Wstok (see Novaya Zemlya bora)

Wyjące pięćdziesiątaki -- Eng. "howling fifties"; this term was most probably given, by whalers in the nineteenth century arriving in the southern hemisphere, to westerly winds in the belt between 40 and 50° South latitude, blowing with great force, roaring and shrieking; also: ryczące czterdziestki ["roaring forties"] [7, 25].

Wyrbel (see wir powietrzny ["tornado, whirlwind"])

Wyrbelwind (see wir powietrzny)

X

Xaloc -- a warm and humid southeasterly wind over Minorca; this is the sirocco [8, 17, 25].

Xaloch (see sirocco)

Xaloque (see sirocco)

Xaroco (see sirocco)

Y

Yalca -- a local term for a snowstorm or blizzard caused by a strong squall wind blowing through passes in the Andes in northern Peru; also: yalka [2, 8, 9, 17, 25, 26].

Yalka (see yalca)

Yamabe -- a cold easterly wind blowing during the summer in the Senriku district in Japan; it is connected with a strong high, blowing over the cold sea and carrying cold air into Japan, lasting 3 days and more, accompanied by clouds, light fog, and rainy weather [2, 8].

Yamo -- a föhn wind blowing through the precipitous valleys in Japan, but not bringing with it any significant temperature increase or drop in relative humidity.

Yellow winds (see żółte wiatry)

Young -- a hot and dry wind in the period of inconstant summer weather over the area of the Mediterranean Sea [2, 8].

Z

Zajc (see wir powietrzny ["tornado, whirlwind"])

Zakręt (see wir powietrzny)

Zawichor (see wir powietrzny)

Zawichylica (see huragan)

Zawichur (see wir powietrzny)

Zawieja (see wir powietrzny)

Zawierucha (see wir powietrzny)

Zawir (see wir powietrzny)

Zefir -- Gr. "zofos," "warm, gloomy, overcast, direction in which the sun sinks, west"; (1) a westerly wind, warm and moderately humid; this term was used in antiquity; (2) an often-used poetic term describing light warm winds; also: zephir, zephros, zephyr, zephyros [1, 8, 15, 20, 25, 26, 27].

Zephir (see zefir)

Zephros (see zefir)

Zephyr -- term for the föhn (Chinook) in Colorado in the USA; also generally: zefir [7, 8, 25].

Zephyros (see ponentis, zefir)

Zisampe -- (1) a term for the northerly bisa in Saint-Agrève in the Dept. Ardèche; (2) a northeasterly bisa in Montélimar; also generally: cisampe [28].

Złe [Pol. "evil"] (see wir powietrzny ["tornado, whirlwind"])

Zły [Pol. "evil"] (see wir powietrzny ["tornado, whirlwind"])

Zły duch (see wir powietrzny)

Zły wiatr [Pol. "evil wind"] (see wir powietrzny)

Zobaa -- a term for sand whirlwinds that look like a high column moving with great velocity in Egypt [2, 8].

Zonda -- (1) a dry and hot föhn blowing out of the west, off of the eastern slopes of the Andes, and in western and central Argentina; this is probably polar-sea air heated up as it passes over and descends from mountains with an altitude of 5,500 m above sea level; sometimes it originates also out of a föhn in the free atmosphere (zonda de altura), which sinks to the surface of the Earth as a zonda de superficie (a pure zonda); the zonda reaches velocities of 11 m/sec, carrying during the dry season dust and sand; (2) a hot and humid wind in the Pampas connected with the passage of a barometric depression to the east, preceding the pampero; also: sondo, viento zonda [1, 2, 7, 8, 9, 15, 17, 18, 25, 26, 27, 36].

Zonda de altura (see zonda)

Zonda de superficie (see zonda)

Żółte wiatry -- Eng. "yellow winds," Ger. "Gelbe Winde," Chin. "huan-fyn"; strong westerly and northwesterly winds blowing during the winter monsoon season in eastern Asia, especially in China, carrying great amounts of dust and loess from out of the deserts and off the steppes; this term comes from the color of loess [2, 8, 9, 17, 25, 26].

BIBLIOGRAPHY

1. Anglo-russkii meteorologicheskii slovar' [English-Russian Meteorological Dictionary]. Comp. by L. J. Mamontova and S. P. Khromov, Leningrad, 1959.
2. Anglo-russkii meteorologicheskii slovar' [English-Russian Meteorological Dictionary]. Comp. by I. P. Gejber. Leningrad, 1959.
3. Birot, P., Dresch, J. La Méditerranée et le Moyen-Orient [The Mediterranean and Middle East]. Paris, 1953.
4. Burman, E. A. Mestnyje vietry [Local Winds]. Leningrad, 1969.
5. Czełpanowa, O. M. Srednyaya Aziya [Central Asia]. In the book: Klimat SSSR [Union of Soviet Socialist Republics] [The Climate of the USSR], 3rd ed. Leningrad, 1963.
6. Djavadi, Chafi. Climats de l'Iran [Weather Systems of Iran]. In: Monographies de la météorologie nationale [Monographs on National Meteorology], No. 54, Paris, 1966.
7. Forrester, F. H. 1001 Questions Answered about the Weather. New York, 1961.
8. Glossary of Meteorology. Boston: Huschke, R. E. 1959.
9. Handwörterbuch der Meteorologie [Dictionary of Meteorology]. Frankfurt on Main: K. Keil, 1950.
10. International Meteorological Vocabulary, "WMO [The World Meteorological Organization]," Vol. 91, No. 182, Geneva, 1966.
11. Kosińska-Bartnicka, S. Wiatry terenowe na Podhalu i w Tatrach [Ground Winds in Lower Galicia and the Tatras], "Geophysical Works," Vol. 7, Nos. 2/8, 1930.
12. Kraje i morza pozaeuropejskie [Transeuropean Regions and Seas], In: Geografia fizyczna [Physical Geography]. Warsaw, 1959.
13. Kupiszewski, W. Indeks gwarowych nazw z zakresu meteorologii [Index of Idiomatic Names from the Area of Meteorology], "Geophysical Review," Vol. 10 (18), No. 2, 1965.
14. Lewińska, J. Wiatry ryterskie i rymanowskie [Winds of Rytro and Rymanow]- "Geophysical Review," Vol. 3, No. 1, 1958.
15. Milata, W. Wiatry regionalne w swiecie [Regional Winds in the World], "Get to Know the World," Vol. 1, No. 3, 1948.
16. Naliwkin, D. W. Uragany, buri i smierchi [Hurricanes, Storms, and Whirlwinds]. Leningrad, 1969.
17. Nemecko-ruskii meteorologicheskii slovar' [German-Russian Meteorological Dictionary]. Comp. by V. A. Belinskii. Leningrad, 1959.

18. Okołowicz, W. Klimatologia ogólna [General Climatology]. Warsaw, 1968.
19. Okuta, Minoru. The Idiot Typhoon. Translation from Japanese. Moscow, 1963.
20. Proch, L. Z. Serditye i dobre vetry [Angry and Kind Winds]. Leningrad, 1961.
21. Rojecki, A. Reviewed by Schamp, H. Die Winde der Erde und ihre Nahmen [The Winds of the Earth and Their Names], In: "Przegląd Geofizyczny" [Geophysical Review], Vol. 12 (20), No. 3/4, 1967.
22. Rossolimo, L. L. Bajkał [Baikal]. Warsaw, 1969.
23. Rumney, G. R. Climatology and the World's Climates. New York, 1968.
24. Russian-English Dictionary of Meteorological and Related Terms. Washington, 1943.
25. Schamp, H. Die winde der Erde und ihre Nahmen [Winds of the Earth and Their Names], "Earth Sciences: Series for Research and Praxis," No. 8, Weisbaden, 1964.
26. Schindler, G. Meteorologisches Wörterbuch [Meteorological Dictionary]. Oberfranken, 1953.
27. Schmuck, A. Materiały do terminologii wiatów [Materials on Wind Terminology], "Meteorological Review," Vol. 5, Nos. 1/2, 1952.
28. Vialar, J. Les vents regionaux et locaux [Regional and Local Winds], "A Memorial of National Meteorology," No. 31, Paris, 1948.
29. Weather in the Mediterranean. London: T. I., 1962.
30. Witwickij, G. N. Klimaty zarubezhnoy Azii [The Climate of Outer Asia]. Moscow, 1960.
31. Zubow, N. N. V centr Arktiki [To the Center of the Arctic]. Leningrad, 1940.
32. Borisow, A. A. Klimatografiya Sovetskogo Soyuza [The Climatology of the Soviet Union]. Leningrad, 1970.
33. Dobrynin, B. F. Geografia fizyczna Europy Zachodniej [The Physical Geography of Western Europe]. Warsaw, 1954.
34. Entsiklopedicheskii slovar' geograficheskikh terminov [An Encyclopedic Dictionary of Geographical Terms]. Moscow, 1968.
35. Mediterranean Pilot, Vols. 1 and 2, 1951, 1952.
36. Pietskiewicz, S., Żmuda, S. Słownik pojęć geograficznych [Dictionary of Geographical Terms]. Warsaw, 1973.

ATE
LME
—8